A new kind of Apple Mac magazine

mac FORMAT

NEW

ISSUE ONE £3.50
MARCH/APRIL 1993

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Explore the Mac at its best with our guide to stunning software

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Out of this world entertainment...

Pararena. The announcers voice booms against the stadium background. Two armoured opponents swoop threateningly close to each other on hoverboards and then face each other for battle. A ball is launched into the stadium's playing field, a parabolic dish, and the most exciting, sports simulation game begins. Games can be played either against the computer or against a human opponent over an AppleTalk network. SRP £45

Spaceship Warlock is a blazing, swashbuckling, wonderfilled Science Fiction epic in the grand tradition! Advanced graphics, 3D animation, and an original music score combine to create a cinematic adventure in which you become the central character. CD-ROM only. SRP £75

Spectre features dazzling full colour graphics, fluid 3D animation and best of all incredibly addictive multi-user play over a network. Drop your battletank into the virtual reality world and let rip, collecting flags and destroying the computer, or more fun, your workmates! Play in teams or just run around chasing battletanks. Spectre is available either in single user or 3 User packs. SRP £39, 3 User £69

Tesserae is a puzzle game in which the player eliminates tiles from a 'board' according to colour and texture. For the beginner, the object of the game is to remove as many tiles as possible. Then move on and try to improve your high score by clearing the board in the fewest possible moves. SRP £35

Lemmings, one of the most talked about computer games of the year is finally available on the Mac. Mac owners will have the opportunity to lose sleep, lose their hair, lose their sanity or all of the above, saving mobs of imperiled, confused green haired rodents from certain doom! Over a hundred levels, in four skill ratings challenge your cognitive powers to the extreme. The aim is to rescue the Lemmings dropping through the trap door by guiding them to the exit. Lemmings is an easy game to learn, but a mindbendingly devious one to master! SRP £39

Oids, Rescue the OIDS from the fiendish Biocretes who are turning them into vending machines and household appliances. Fuel your ship, charge your shields, and blast off to adventure as you challenge planetoid after planetoid of devious gravity traps, treacherous teleport puzzles, and wave after wave of Hell Jets, Heat-Seekers, and Burst Orbs.
You can also create your own games with the included construction set.
SRP £29

Hellcats. You are the pilot of the Pacific Theatre's most notorious fighter aircraft. Take off from your carrier on a mission to intercept enemy aircraft, bomb strategic targets and strafe enemy airfields. Hellcats utilises new 3D technology resulting in truly high speed full colour graphics which provide a sense of fluid motion never before seen in a flight simulator. Details include smoke, flames, intelligent enemies, parachutes, haze and even clouds. Also available 'Missions at Leyte Gulf' another eight missions to play once you've finished the first set in Hellcats—this time use rockets and torpeodos to hunt down tanks and subs. SRP £49, Missions £29

Diamonds is the highly addictive colourful 'breakout' game. It's simple to learn but tough to master. The aim is to knock out all of the diamonds on each screen. You need to hit the paintbrush icons around the screen in order to be able to knock out the bricks in that particular colour or pattern. If this wasn't enough there are instant-death bricks and cunning direction changers, which reverse your control keys, or locked bricks which need to be opened with special keys. Diamonds includes a game editor which enables you to create your own screens. SRP £35

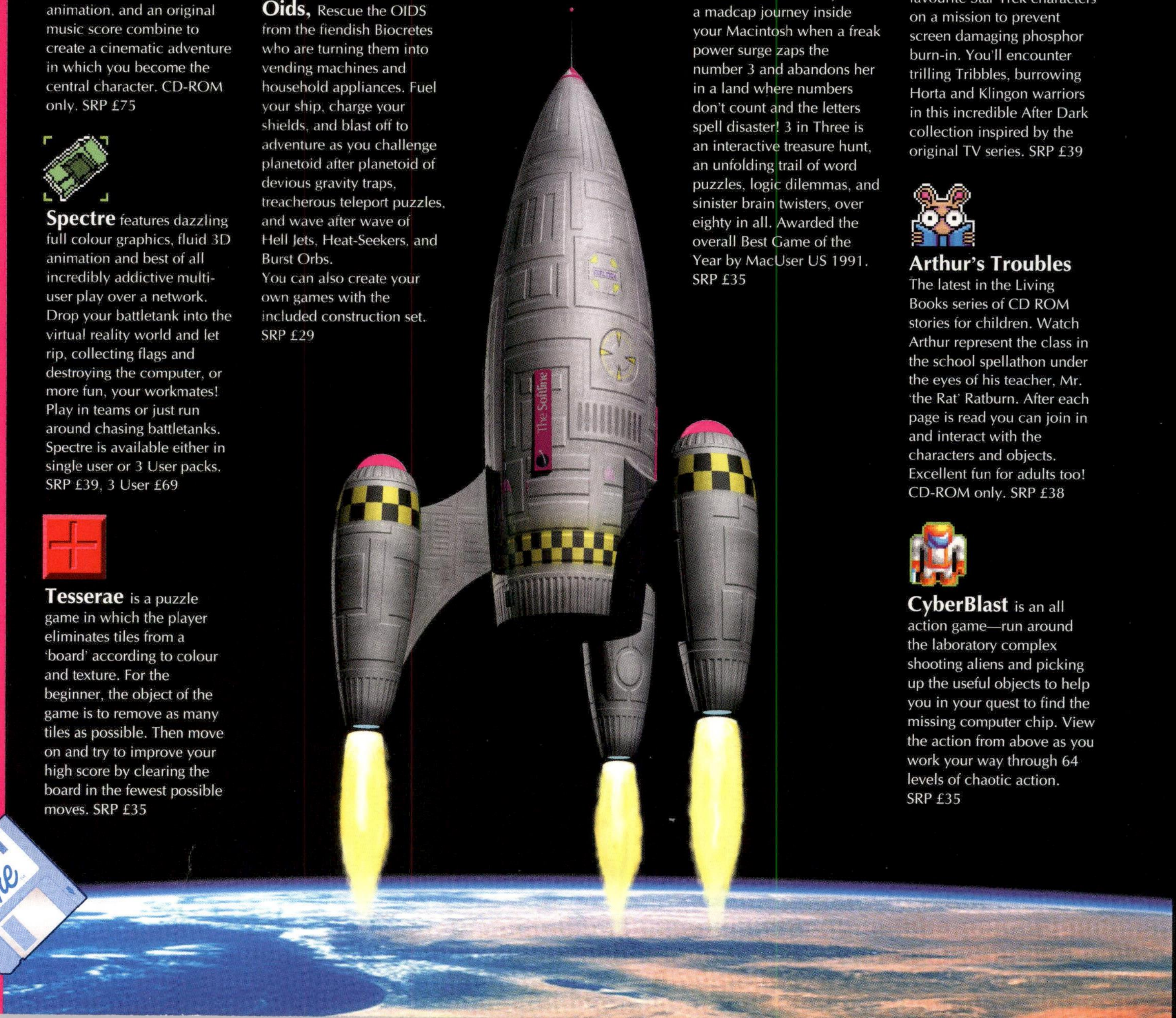
3 in Three takes you on a madcap journey inside your Macintosh when a freak power surge zaps the number 3 and abandons her in a land where numbers don't count and the letters spell disaster! 3 in Three is an interactive treasure hunt, an unfolding trail of word puzzles, logic dilemmas, and sinister brain twisters, over eighty in all. Awarded the overall Best Game of the Year by MacUser US 1991. SRP £35

After Dark the ultimate screen saver, provides a unique solution to the problems of screen burn in. Use After Dark with its many wacky and weird modules which activate after a set time. You can even password your Mac so that people can't use it when you are away. MAD, More After Dark, Vol 1 expands After Dark by providing over 25 new displays, including Boris the kitten and Lunatic Fringe, the space game. SRP £35, MAD SRP £25

StarTrek, the screen saver. Beam aboard the USS Enterprise with Captain Kirk, Mr Spock and all your favourite Star Trek characters on a mission to prevent screen damaging phosphor burn-in. You'll encounter trilling Tribbles, burrowing Horta and Klingon warriors in this incredible After Dark collection inspired by the original TV series. SRP £39

Arthur's Troubles The latest in the Living Books series of CD ROM stories for children. Watch Arthur represent the class in the school spellathon under the eyes of his teacher, Mr. 'the Rat' Ratburn. After each page is read you can join in and interact with the characters and objects. Excellent fun for adults too! CD-ROM only. SRP £38

CyberBlast is an all action game—run around the laboratory complex shooting aliens and picking up the useful objects to help you in your quest to find the missing computer chip. View the action from above as you work your way through 64 levels of chaotic action. SRP £35



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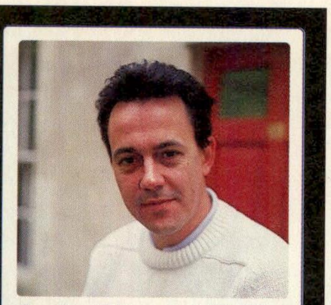

Andy Storer - Editor

Welcome

...and congratulations on picking up the very first issue of a magazine we hope you'll find an entertaining and informative read!

Our reasons for launching *MacFormat* are simple. We believe Mac owers need a magazine which appeals to the home user and enthusiast as well as business and professional Mac users. So you won't find page after page of reviews of expensive software or high-end hardware. Instead you'll find clear and thorough guides to getting the most out of your Mac – whatever you use it for.

We reckon no other personal computer comes any where near the Mac and you'll find that enthusiasm reflected in these pages. Our aim is to provide you, the reader, with definitive guides to every aspect of what makes the Mac excel – and that includes reviews of the best games making their way to your machine!

But how are we going to make sure you get what you want? Well, please write in and let us know! I'm always open to suggestions as to how we can improve any aspect of the magazine. So if you want more or less tips, advice, news, reviews and buying guides on any subject then drop me a line.

Anyway, enough of the intros. This is MacFormat – at last!

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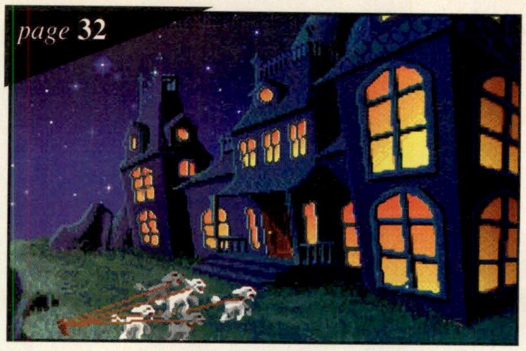
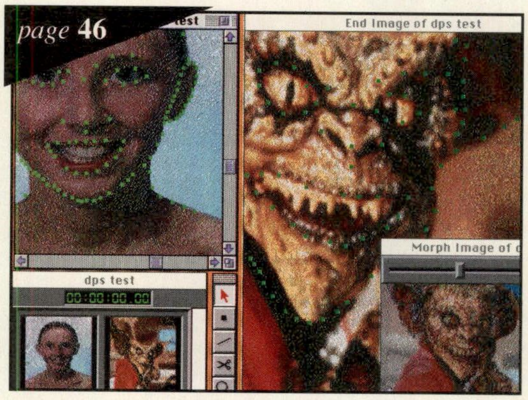


Amusement arcade

The Secret of Monkey Island*, *Sim Life*, *JourneyMan Project*, *Red Baron*, *Out Of This World and ***Spaceward Ho!*** reviewed
PLUS Games-busting tips on ***Hellcats***



Megamorphosis

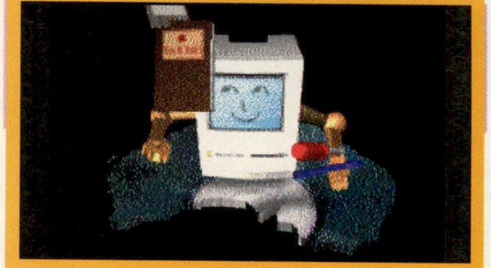
At only £99, ***Morph*** delivers some of the best graphics special effects of ***any*** package.

We show you how to get better results and how to produce your own ***Terminator 2***-style effects clips. It's easier than you think

FINDER

NEWS UPDATES *page* **7**
All the gen on nine brand new Macs and reports of the latest kit from the US

LETTERS *page* **20**
Issue 1 maybe, but there's still some letters! – and plenty of money-making opportunities



VIDEO
So what's all the fuss about QuickTime? Check out how to get started in Mac video *page* **50**

CD-ROM *page* **40**
With over 500 titles available, is this the time to buy a CD drive for your Mac?

Style is everyt
If you are going to write professionally you nee
FORMA

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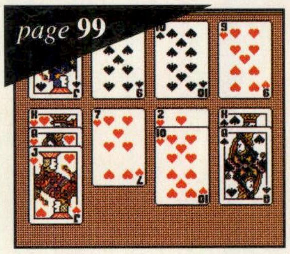
Publish-It! Easy
Is it really worth buying a full blown page-make-up package for over £500 when you can buy this full-featured DTP application for less than a £150?



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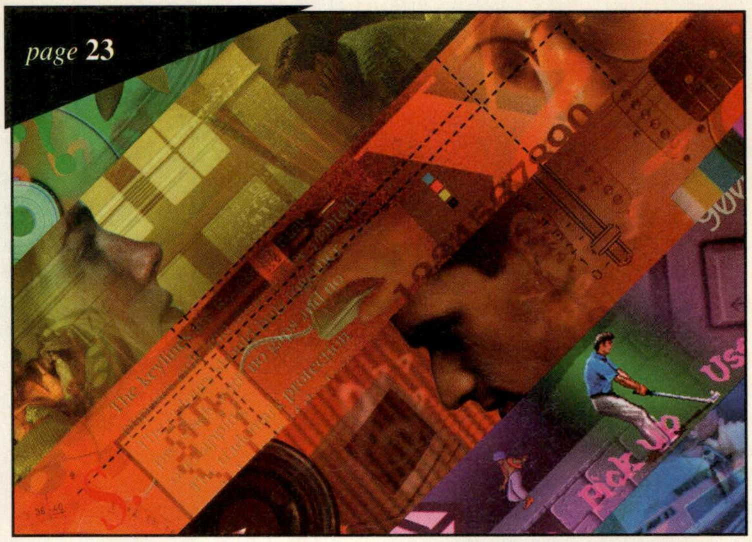
The Shareware Zone
All the latest low-cost and no-cost releases from the public domain.
PLUS the best in try-before-you-buy software and where to get it



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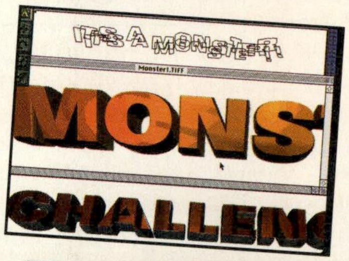
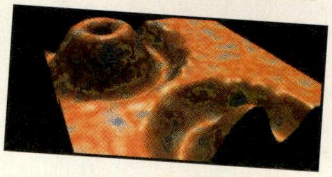
Hot Mac software

With over 5000 applications to choose from, your machine has the best software in the world. But which stand out from the crowd? ***MacFormat*** showcases the show-stoppers in the worlds of Design, Media, Business, Reference, Learning and Leisure...





COVER DISK INSTRUCTIONS

So you've ripped your Lemmings off the cover and you're about to slam 'em in your disk drive...

Just follow these simple steps:

- Take hold of the disk
- Slide it lovingly into your floppy drive slot
- Wait until its window appears
- Double-click on the icon. This is a self-extracting archive file containing both Lemmings and Disinfectant
- Choose a folder on your hard disk where you want the files to be stored and hang on while the code is expanded.
- And hey presto! – that's it

Now turn to page 16

mac ANSWERS

Page 87 – When there's no where else to turn...
All your problems solved!
Whatever your posers and niggles we'll sort it

MASTERING WORD 5.1 page 42
How to perfect your mail-merging using Word in 20 easy steps

DESIGN COUNSEL page 59
The first installment in a series bringing you the know-how on type and design

LET'S GET SERIOUS

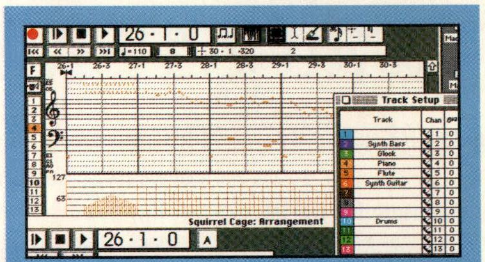
WORD–PROCESSING page 67
How should you make the write choice? We spell out the crucial purchase decisions

SPREADSHEETS page 70
Can't keep track of your bank balance? How to get your year in gear the easy way

DATABASES page 72
Do you really need to spend nearly £900 on a good Mac database? – err, no actually

WHADDYA THINK? page 75
Fill out our questionnaire and let us know!

GET IN TOUCH page 76
Where to make contact with other Mac owners in your locality



BEAT BOX DIMENSIONS page 62
The first outing in a regular MIDI music series kicks off with a look at the gear needed for a complete Mac home system:
- Synths and sequencers sampled
- Jargon banished and terms explained

UTILITIES page 78
MacPrefect and *Dynodex* reviewed – two essential applets you'll find indispensable

WIN INTELLIDRAW! page 45
We have 15 copies of the smart graphics program *Intellidraw* to give away...
Get your hands on one of these great £150 packages by answering some ridiculously easy questions...
Sticking a stamp on a postcard is harder!

GOING ON-LINE page 94
Why buying a modem could be the best thing you ever buy for your machine

MACS IN EDUCATION page 96
How Macs are being used for design training in further education

CHOOSER page 108
Six pages of all the affordable software in the Macintosh world PLUS all the phone numbers and prices to go with it

BEGINNERS START HERE
New to the Mac? page 80
Six pages of neat tips and advice on how to get more from your machine:
- Better ways to organise your desktop
- How to master all of *At Ease* at once
- Moving around the Finder faster – tons of tips to enhance performance

WIN WIN WIN!!! page 114
Turn here to find out how you can get your hands on a brand new LCIII by answering just three simple questions
Licking an envelope is harder!
PLUS What's happening next ish?

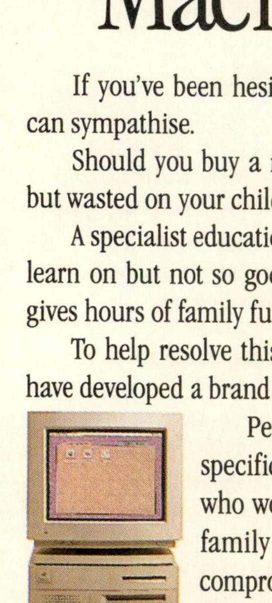
Introducing Performa. The new generation Macintosh that all generations can use.

If you've been hesitating over buying a computer for home, we can sympathise.

Should you buy a regular business PC that's adequate for work but wasted on your children?

A specialist educational computer that's perfect for the kids to learn on but not so good for grown-ups? Or a games machine that gives hours of family fun but does nothing to expand the mind?

To help resolve this dilemma once and for all, Apple Macintosh have developed a brand new range of computers called Performa.™



The Macintosh Performa 600 is available with a built-in CD player.

Performa is the first ever Macintosh designed specifically for the home – as well as for people who work from home. And the first to let the whole family work, learn and play, without having to compromise.

Grown-ups get a powerful, fully functional desktop PC that can even read office MS-DOS® and Windows™ files.* Plus a built-in program called At Ease™ that safeguards your documents from other members of the family.

Built-in ClarisWorks™ software lets you write, draw, communicate and organise information right from the start.

The kids get to use the same technology that's made other Apple Macintosh computers the biggest classroom sellers in the world.

And for children of all ages there's the capability to run a stunning variety of graphics and games.

Performa is so user-friendly that beginners can learn the basics in next to no time at all. And to help you get the best out of your Performa we're offering a year's free telephone assistance to answer any questions you may have.**

Every Macintosh Performa comes with one year's free telephone assistance.**

To find out more about Performa just dial 100 and ask for Freefone Apple. Or, better still, pop into your nearest Apple Authorised Retailer.

And try out the one computer for home that can be used by everyone at home.

Introducing Performa. The Macintosh that's at home in your home. Apple™

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Apple's mega Mac roll-out

Apple Computer launched nine new Macs in the UK in February – the biggest ever roll-out of new machines from the US-based company.

Six of the new machines enhance the main Mac range, while the other three are styled the Performas – models which have previously only been available in the United States.

While most Macs will continue to be available only through traditional Apple authorised outlets, the Performas are to be sold in high-street stores such as Dixons, Wilding, Ryman and John Lewis. This marks a major departure in retail policy for Apple, and demonstrates the fact that it is now firmly targeting the home user market – traditionally the company's weakest sales area.

All three members of the Performa family are based on existing Macs, and have been on sale in the United States for some months now. They come with the popular *Claris Works* integrated package and two utilities from Apple, *At Ease* and *PC Exchange*, already installed on the hard disk. The other new machines include the company's first colour portable computer, the PowerBook 165c, and a colour version of the Classic II, styled the Colour Classic, although this model will only be available to purchasers eligible for Apple's education purchase scheme.

- **This page:** Performas signal Apple's interest in the home market.
- **Page 9: MacFormat** examines the new Macs.

The Colour Classic, just one of nine new Macs launched by Apple last month. This one is only available to education users, though

Comment

The pace of Apple's new product releases has radically stepped up in the last two years. In the 1980s, the company was bringing out maybe one or two machines a year; last month Apple launched more Macs in one day than in any two previous years combined – and there are plenty more new machines on the way over the next few months.

One constant factor in Apple's sales policy over the last couple of years has been a steady downward pressure on prices – from being an 'elitists only' computer, the Mac is now well on the way to being a true home user's machine.

To complete this transition, though, another group of people need to rethink their policy: software manufacturers. Mac software is generally much more expensive than comparable programs on the PC, Amiga et al – and that is something which is still putting off many potential purchasers of the machine.

Software companies need to realise that with a new market opening up, a whole new range of programs needs to be available; 'lite' versions of existing powerful packages, perhaps; or maybe the reasons for Mac versions of programs being more expensive at all need to be re-examined.

Only then will the Mac be able to claim that it is 'the computer for us all.'

Performas for the people

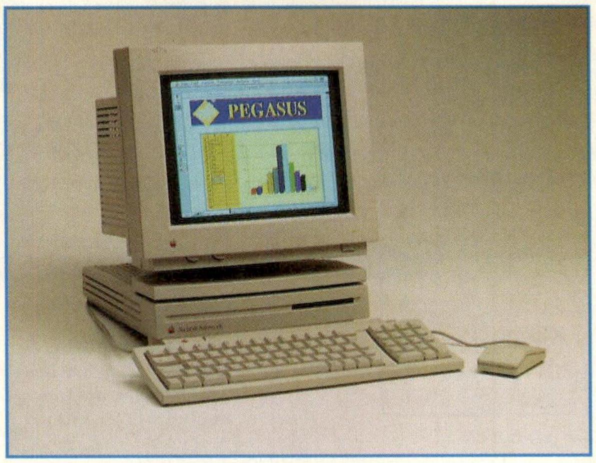
The Performas are the first Macs to be directly targeted at the home computer market in this country. The new family comprises three members: the Performa 200, based on the Classic II; the Performa 400, based on the LC II; and the Performa 600, which is a hybrid of the IIvi and the IIvx.

The 200 has a 68030 processor running at 16MHz, and has a built-in mono screen; it sells for £799 in its basic 4M RAM configuration. The 400 uses the same speed processor, but is bundled with a 14-inch colour monitor and costs £1099. The 400 also has greater expansion capabilities, with a built-in Processor Direct Slot (PDS) available for third-party add-on products such as video grabbing hardware.

The Performa 600 has the same 32MHz 68030 processor as the IIvx, but no RAM cache or maths co-processor (although this is available as an optional extra).

Expansion is via three NuBus slots, and the 600 is the only machine of the three to have an optional built-in CD-ROM drive, the CD300i (the other two machines can use Apple's external version, the CD300).

Each of the Performas comes pre-loaded with *Claris Works*, *At Ease* and *PC Exchange*. They run a version of the System Software called 7.1P, which has some minor cosmetic differences to the general release version of System 7.1. Apple says that all three machines will be available immediately, although demand is likely to be high, which may mean some delays.

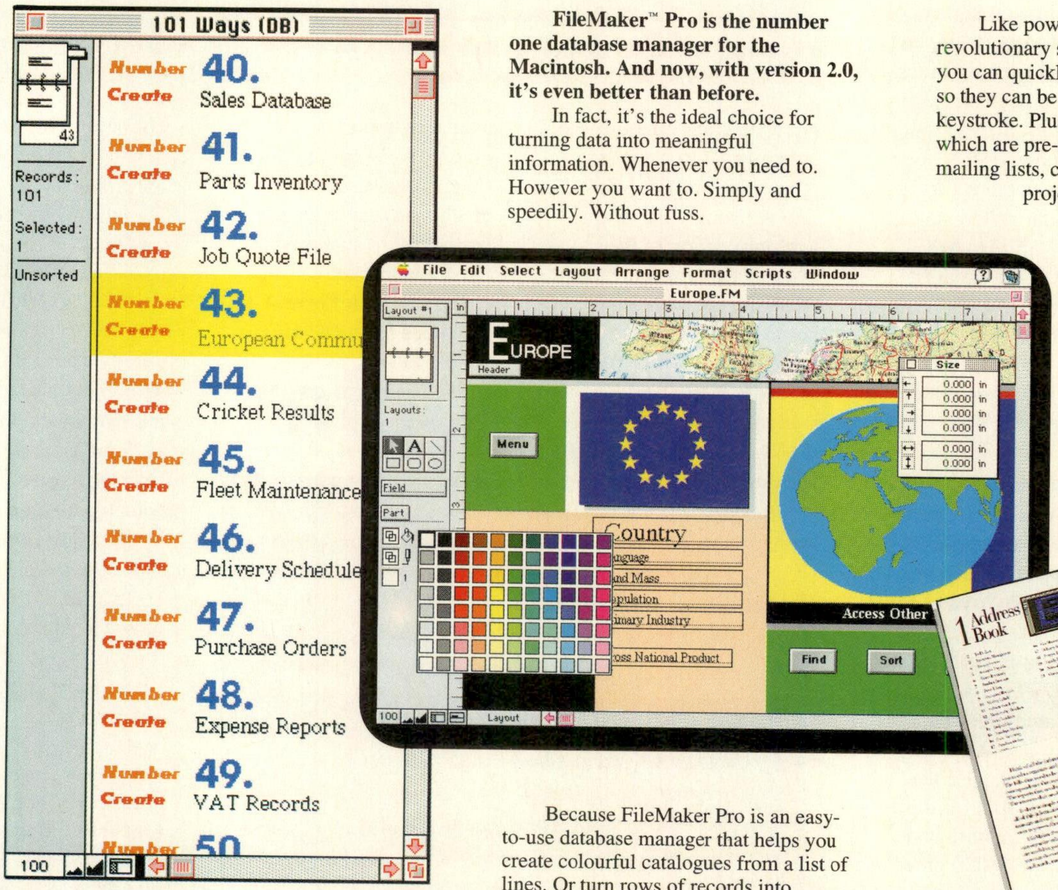

The new Performas from Apple: available from high-street retailers, and shipped with bundled software including *Claris Works*

WHAT'S NEWS ■ WHAT'S NEWS ■ WHAT'S NEWS ■ WHAT'S NEWS ■ WHAT'S

- How the new Performa will look – this page
- Apple announces five new desktop Macs and a powerbook – page 9
- Aldus ships *Freehand 3.11* – page 9
- Club for users of Steinberg products announced – page 9
- Two new printers from Apple – page 9
- Full listings of new Mac prices – page 9
- *Microsoft Office* trade-in deal extended until March 1993 – see page 11 for details
- Upgrade of *Ofoto*; scanning software – full story on page 11
- World's first CD ROM novel – *The Madness of Roland* – hits the streets – page 11
- Virus Watch; latest versions of anti-virus software – page 12
- Two neat games for the Mac – page 12
- Low-cost warranties on offer – page 12
- Upmarket – page 14
- Apple news from the future – page 15

We can think of 101 ways to use FileMaker Pro 2.0 but only *one* reason.

It's even better than before.



101 Ways (DB)

Records: 101

Selected: 1

Unsorted

Number 40. Create Sales Database

Number 41. Create Parts Inventory

Number 42. Create Job Quote File

Number 43. Create European Commu

Number 44. Create Cricket Results

Number 45. Create Fleet Maintenance

Number 46. Create Delivery Schedule

Number 47. Create Purchase Orders

Number 48. Create Expense Reports

Number 49. Create VAT Records

Number 50

Number 43. European Community File. Using FileMaker Pro's comprehensive layout capabilities is simple. And you can transform your data into professional-quality reports, directories, product lists, catalogues and forms. The list is endless.

FileMaker™ Pro is the number one database manager for the Macintosh. And now, with version 2.0, it's even better than before.

In fact, it's the ideal choice for turning data into meaningful information. Whenever you need to. However you want to. Simply and speedily. Without fuss.

Like powerful ScriptMaker™. Its revolutionary scripting capability means you can quickly automate complex tasks so they can be accomplished in a single keystroke. Plus, professional templates which are pre-designed for invoicing, mailing lists, contact management, project and lead tracking, and much more — to get you productive immediately.

You can quickly create checkboxes, radio buttons, pop-up lists and menus to accelerate your data entry to the click of a mouse.

FileMaker Pro 2.0. Even better than before. In 101 ways. At the very least.

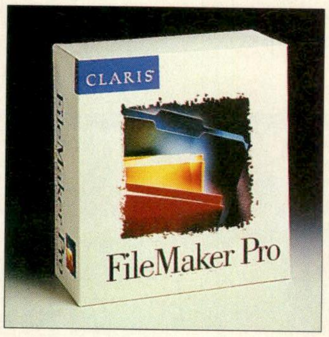
FREE
1 Address Book
70 Pri
101 Uses for FileMaker Pro
FileMaker Pro

Because FileMaker Pro is an easy-to-use database manager that helps you create colourful catalogues from a list of lines. Or turn rows of records into reports that resonate. And, at only £275 RRP, the benefits of using FileMaker Pro are endless. Especially now that we've just added over 50 new features. So you have even more power for scripting, data management and computing across workgroups. FileMaker Pro will even number or serialise your records automatically to create invoice, part and account numbers.

And you don't have to program a single line of code. Because FileMaker Pro brings new database powers to novices and experienced users alike through its unique set of professional templates and customisation tools .

Upgrade to FileMaker Pro 2.0 from any previous version for only £50*. Or trade-in your existing database or other Macintosh application for just £100*. For full details and a list of applications eligible for trade-in, call Freephone 0800 929005 in the UK.† When you call, we'll send you your FREE copy of "101 Ways to Use FileMaker Pro 2.0".

* Prices exclude VAT and shipping.
† Call Freephone 1800.732732 in the Republic of Ireland.



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News in brief

■ Aldus UK is now shipping *Freehand 3.11*, an update to its popular design and illustration program.

Version 3.11 includes full support for *Aldus Fetch*, the company's image cataloguing application.

The program also provides a Truematch colour library, improvements in file generation, previewing and printing. Truematch support also provides nearly 2,000 more pre-defined colours. The upgrade will be mailed out free to all registered users of *FreeHand 3.1*.
Aldus 031 220 4747

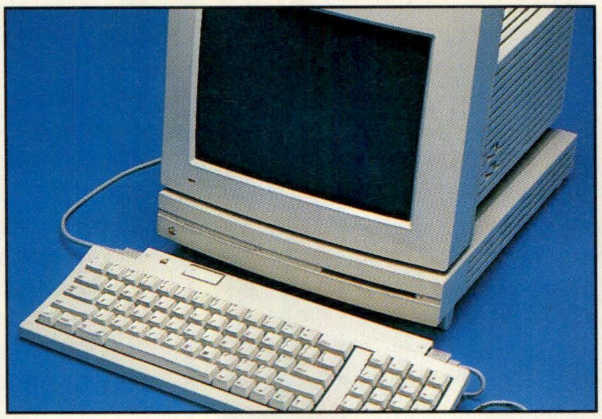
■ We have ten copies of *Aldus IntelliDraw* to give away: turn to the competition on page 45.

■ The *Expanded Book Toolkit*, from The Voyager Company, claims to give you the ability to produce multimedia books in just a few hours. The Toolkit automatically turns an imported text document into book form, and creates chapter headings and a table of contents. Annotations and text linking are easy to create, and the program supports *QuickTime* so that video clips can be included.

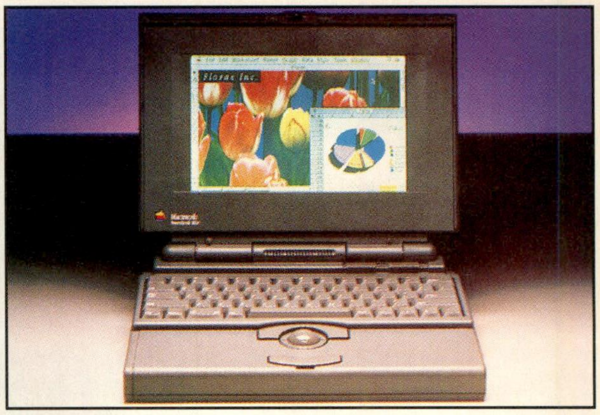
Major American publishers Random House and Macmillan have said that they will be using the *Toolkit* to create electronic books on the Mac. In the UK, the program is available from Softline (081 642 2255). It costs £281.

■ Users of Steinberg's Cubase family of MIDI music software can now join the official UK user group.Club Cubase promises to offer discounts on Steinberg products, special promotional product deals, disks of MIDI synth sounds and a bi-monthly magazine.

Membership costs £14 a year, and the phone number is 081 368 2245.



The LC III: twice the power of the LC II, for £1,462



The PowerBook 165c: the first colour apple portable

Apple powers up its entire range

Apple announced the launch of five new desktop Macs and a colour PowerBook on February 9, expanding and changing every area of its product line.

Two new low-cost laser printers were also released, along with the Performa range of low-cost machines, which will be sold in high-street retail outlets (see story, page 7).

One of the most eagerly-awaited new Macs is the Colour Classic, although Apple UK has taken the unexpected step of announcing that it will only be available through its education purchase scheme. The base configuration, which has 4Mb of RAM and a 40Mb hard disk, will sell for £911; the 4/80 model will cost £1028. The Colour Classic is based on the popular Classic II, but features a 10-inch 512 x 384 pixel screen capable of displaying 256 colours. It has an LC processor direct slot (PDS), which means that any expansion card available for the Mac LC line should work on the new machine.

Another new machine which is bound to be popular is the LC III, which is based on – but has twice the speed of – the LC II. The LC II was the best-selling Mac in 1992: the combination of relatively low cost and reasonable power made it a favourite.

The LC III cashes in on that popularity by coming in at a reasonable £1,463 for the base configuration. It's based on a 25MHz 68030 processor, but has a full 32-bit bus architecture, unlike the LC II. The LC III can have a maths co-processor installed and can be expanded to 36Mb of RAM – the LC II's maximum was 10Mb.

Apple's mid-range line has been expanded by two low-cost 68040-based machines: the Centris 610 and 650. The 610 uses the 68LC040 processor, which doesn't have a built-in maths co-processor, and runs at around twice the speed of the IIvx; the 650 has the true 040, and runs at three times the speed of the IIvx. The 650 also features an Ethernet interface as standard. Prices for the 610 start at £2,050 for the 4/80 model, while the 650 4/80 costs £3,049.

At the high end of the range, the new Quadra 800 runs at 30 per cent faster than the Quadra 700 – which it is likely to replace in the near future. The machine is powered by a 33MHz 68040 chip, and features three NuBus slots in a floor-standing case.

Finally, Apple's first colour portable computer has been released: the PowerBook 165c has a 33MHz 68030 processor, and runs at the same speed as the PowerBook 180, but has a passive matrix colour screen which will display 256 colours. The price for the 4/80 version is £3,225.

■ **WIN AN LC III! Turn to page 114.**

Those new Mac prices in full

Machine	Configuration	Price
Performa 200	4/40	£799
Colour Classic*	4/40	£911
Performa 400	4/40	£1,099
LC III	4/40	£1,462
	4/80	£1,639
	4/160	£1,851
Performa 600	4/80	£1,249
	4/80	£1,028
Centris 610	4/80	£2,050
	4/230	£2,556
	4/230CD	£3,378
Centris 650	4/80	£3,049
	4/230	£3,519
	8/230CD	£4,342
	8/500	£4,694
Quadra 800	8/230	£4,929
	8/500	£5,587
	8/500CD	£5,869
PowerBook 165c	4/80	£3,225
	4/120	£3,519

Configuration is given as RAM size, followed by hard disk size. The letters CD after the disk size indicate that an internal CD-ROM drive is included. *Only available to education users.

Laser printer line grows

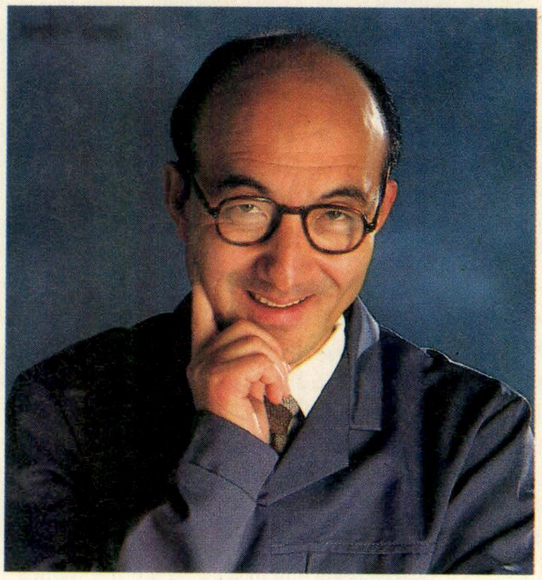
At the same time as the new Macs were launched, Apple announced two new mid-range laser printers, which it has dubbed the 'Select' series.

Both printers are based on the Fuji Xerox 300 dots-per-inch (dpi), 5-page-per-minute engine. The Select 300 is a QuickDraw device, costing £911; its big brother, the Select 310, is a PostScript version of the same machine and costs £1,110. Both printers come with a standard 250-sheet, A4 paper tray. The Select 300 is available now; the Select 310 will be shipped mid-March.

■ Apple's high-end LaserWriter Pro 600 now includes 8Mb of RAM as standard, 'in response to strong customer demand.' The printer costs £2,227.

Nishizawa says:

(Star's senior product development engineer)



"I've spent two years getting it right."

A brand new series of 3 individually specified laser printers. Designed to meet the growing needs of as many people and their systems as possible – whether it is their first or fifty-first laser printer. With so many high quality and highly specified printers to choose from today, I knew it would have to be not just as good but exceed in many areas.

"It must work with your existing system and software. It must therefore be Industry compatible.

The paper handling had to include more than one source and even go up to three. With a standard capacity of 300 sheets (maximum 800 in any one of four sizes) as well as envelopes.

The microfine toner and drum had to be a combined single unit and provide an even longer life (8000 sheets) at an even higher print resolution. The definition had to be not only enhanced but improved. The new Star Resolution Enhancement Procedure (REP), available on 2 of the 3 models, will produce a genuine 600 x 300 dpi.

All companies have to be able to share printers, which created the need to include dual interfaces that select automatically.

Lower cost could not mean lower performance. A RISC processor had to be included for the first time on this level of printer, which ensured that the all important time to first page would be comparable to more expensive models.

It had to include the widest choice of fonts. From the basic 14 bitmapped up to 8 scalable, 35 PostScript and beyond. The LS-5 Series had to come with an additional 15 TrueType fonts on disk for all Windows 3.1 users, while the LS-5 TT needed to include 35 resident TrueType fonts for true WYSIWYG. Whether used on Windows or Apple MAC systems."

"I am sure that when you look at the new LS-5 Series, you will understand why I am now finally satisfied!"

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LS-5
LS-5EX
LS-5 TT

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News in Brief

■ *SoftPivot 2.0*, from Radius, allows the Pivot family of monitors to be driven from the built-in video circuitry of the new Macs without a separate interface.

The Pivot monitors are 15-inch displays which can be used in either portrait or landscape format – and can be twisted from one to the other, even while being used. The new software means that the LC III, Centris range, Quadra 800, DuoDock range and PowerBooks 160, 165 and 180 can all interface to the Pivot without an extra adaptor.

The software is now shipped with all Pivot monitors, and is available free to registered Pivot users from Radius or via the AppleLink and CompuServe bulletin boards.
Radius UK: 0635 38531.

■ DirekTek has sewn up the distribution rights to a new, low-cost PostScript printer from Digital Equipment.

The DECLaser 1152 is a 300dpi PostScript Level 2 device, based on a four-page-per-minute engine. It has built-in parallel, serial and AppleTalk interfaces, and also supports the PC-based PCL page description language.

The price of £1,056 – making this just about the lowest-cost Level 2 printer on the market – includes a year's on-site manufacturer's warranty.

For more details, call DirekTek: 081 845 5969

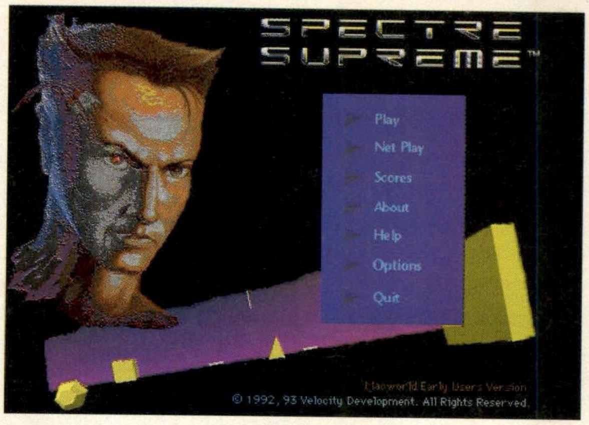
■ Apple Computer has announced record revenues of $161.3m for its first fiscal quarter of 1992-93. Net revenues were $2bn – the first time that the company has achieved this level of revenue – and total Mac unit growth was up over 31 per cent year-on-year.

Microsoft Trade-in

The *Microsoft Office* trade-in for Mac users, introduced last year, has been extended until the end of March.

It allows you to trade in one of your existing Mac applications for *Microsoft Office*, which includes *Microsoft Word 5.1*, *Microsoft Excel 4.0* and *Microsoft PowerPoint 3.0* (a presentations package, requiring System 7 and 4Mb of RAM to run). A license for *Microsoft Mail for AppleTalk Networks* is also included in the pack.

To take advantage of the offer, you just need to purchase the Trade-In Pack from any Microsoft dealer for £345. The Pack contains a mouse mat, two demonstration disks and a voucher. Complete the voucher, send it off with proof that you're currently using a Mac spreadsheet, word processor, presentation package or integrated package and you'll receive the full *Microsoft Office* package within ten days. For details of your nearest dealer, call 081 784 1234.


SPECTRE SUPREME™
Play
Net Play
Scores
About
Help
Options
Quit
Macworld Early Users Version
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Spectacular Spectre

***Spectre Supreme*, an upgrade of the popular 3D shoot-em-up, is currently in beta testing and should ship soon. Visitors to January's MacWorld Expo in San Francisco were able to pick up a trial copy of the program, with profits from the sale of the beta going to AIDS charities.**

The new version is a radical re-write, with many more features including a wider variety of enemies, acid pits and transporter stations. Extra maps are included on the program disk, and more will be available in the future.

There is also likely to be a CD-ROM version of the revised game in the near future, including *QuickTime* movie clips which play between levels.

Spectre Supreme will work on any Mac with at least 2Mb of RAM (4Mb is required for System 7).

Price and shipping date have not been finalised, but it is highly likely that Softline, current distributor of *Spectre*, will continue to distribute the product. **MacFormat** will, of course, review the game as soon as a finished version is available. Softline can be called on 081 642 2255.

Ofoto Upgrade

Light Source has released version 2.0 of *Ofoto*, its easy-to-use scanning software. The new version handles colour, as well as grey-scale images.

The program is one of the first applications to take advantage of Apple's *ColorSync* System software extension which allows images to display more accurately. The new version simplifies and improves scanning, editing and printing of colour images. The user is provided with tools to adjust images so that they better match the original scene, compensating for the differences in film or paper.

A Balance Exposure command automatically corrects any exposure problems, while the Focus command attempts to correct out-of-focus photos.

Version 2.0 can create CMYK (cyan, magenta, yellow, black) colour separations of images from digital RGB (red, green, blue) data provided by a scanner, and can save them as CMYK TIFF or desktop colour separation EPS files.

The software will automatically compensate for such things as crooked positioning of the original on the scanner bed, and uses its 'Adaptive Calibration' techniques to ensure that the scanned input will be printed as accurately as possible, regardless of the output device.

Ofoto 2.0 costs £295, from Computers Unlimited (call 081 200 8282).

Multimedia Madness

HyperBole Studios has released *The Madness of Roland*, a CD-ROM disc which is being styled "The world's first interactive multimedia novel"

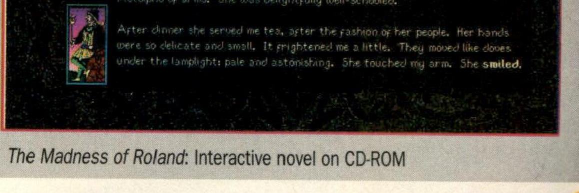
The disc contains 256-colour paintings, *QuickTime* video, music, narration by actors, sound effects, and the full text of the story.

'Readers' of the novel can listen to, and watch, the story from any of the major characters' points of view, changing at will with a click of the mouse. *QuickTime* clips illustrate the story, along with sound effects and video montages.

The author and designer of the novel, Greg Roach, says that progressing through the whole work should take a reader several hours; although you can pick and choose which chapters to read, you can't view the finale until you have read all the preceding sections.

The Madness of Roland will be distributed by Active Distribution, and should be available in the next few weeks. It will cost £70, and has an 'R' certificate – the packaging says that it is 'intended for mature audiences', which probably means that it's not suitable for children.

Active Distribution is on 081 838 1280.



Her eyes were like nothing I had ever seen. Oddly shaped and almost **black.** She was deliciously **scented.** Her appearance took us all quite unaware. She said to me, Are you the Roland of whom so many sing? I remember one of the **babies crying.** She told us she came as an envoy from her father. She kept glancing at me as she spoke to my uncle. **Medordo** squeezed my hand. I looked back at him and he smiled.

Gisela, tell the steward we'll be having a guest for dinner. The cooks should give us something special! My uncle loved to throw parties. Any excuse. It didn't matter. Here was one plopped in his lap.

She talked with my uncle of trade; spices and gold. She talked with Astolpho of arms. She was delightfully well-schooled.

After dinner she served me tea, after the fashion of her people. Her hands were so delicate and small. It frightened me a little. They moved like doves under the lamplight; pale and astonishing. She touched my arm. She **smiled.**

The Madness of Roland: Interactive novel on CD-ROM

Let's take the A-Train...

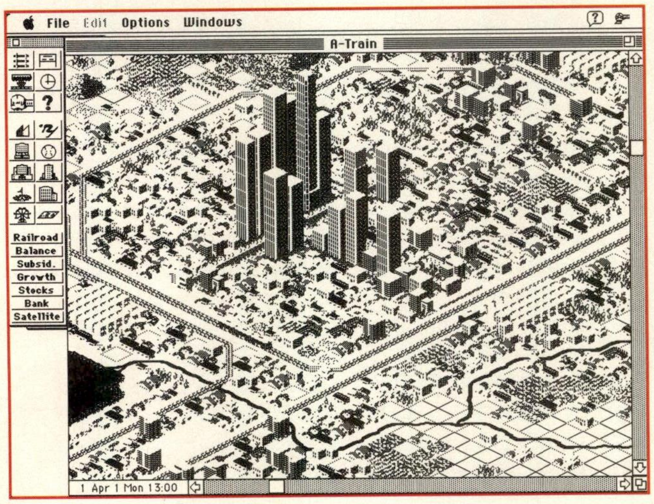
A-Train, from Ocean Software, is due to go on sale for the Mac in April this year. The game was originally released on the Amiga, and runs in 16-colour or mono mode on the Mac.

You play the part of the railroad manager, and the idea is simply to keep the railroad running and profitable, building up new towns along the way. You create towns, industrial areas, leisure complexes and so on, and you have total control over the trains' schedules: you can build and destroy railway tracks on a whim. Indeed, it all starts to sound suspiciously like a Government Ministers' training scheme…

There are various ready-created scenarios available, such as 'Bay Area' and 'Downtown Redevelopment', or you can choose to start from scratch with just a couple of houses and a tiny section of track.

The program charts your railway's profitability on a day-to-day basis, and your share price changes accordingly.

A-Train will cost £47, and should be available from most Mac software dealers.



Left: *A-Train*, from Ocean. See first hand if privatisation really is a good thing or not

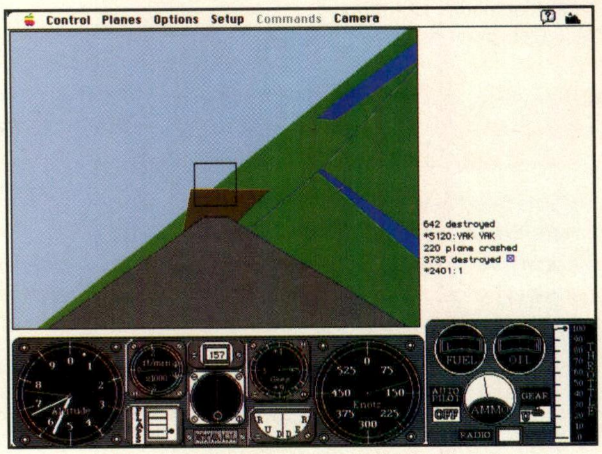
Fight the good fight

Air Warrior is a multi-user flight simulation game run by Online Entertainment. The software runs on your Mac but you connect to others via your modem, which dials in to a central computer.

Once connected, you can just fly your plane (any of a number of different models are simulated) around a computer-generated landscape, or hunt down and destroy other flyers. Because the software and maps are resident on your computer, and do not have to be downloaded, the game works at a reasonable speed even if you only have a slow modem.

Users of the system say that the appeal over conventional flight simulators is that you are actually interacting with other human beings, rather than with computer-generated opponents. This gives you the opportunity to form alliances; a text-based 'radio' simulator allows you to chat to other pilots).

The charging schedule for the game has recently been changed: now, for £9.99 per month users get unlimited access time at no extra charge (other than the cost of the phone call).



```
642 destroyed
*5120:YAK YAK
220 plane crashed
3735 destroyed
*2401:1
```

Air Warrior: simply fly your plane or hunt down and destroy other flyers

Online Entertainment has agreed to give readers of **MacFormat** a week's free trial subscription to the service. Just send your name and address, along with the coupon on this page, to On-Line Entertainment Ltd, 642a Lea Bridge Road, London E10 6AP and you'll be credited with a week's free on-line time.

On-Line Entertainment is on 081 558 6114.

Virus Watch

Each issue, we'll give a list of the latest version numbers of the major anti-virus utilities. This month, here are the latest version numbers:

Program	Version	Price	Available from
Disinfectant	2.9	Freeware	PD houses/user groups
GateKeeper	1.2.7	Freeware	PD houses/user groups
SAM	3.5	£176	Symantec 0628 777677
Virex	3.9	£69	Softline 081 642 2255

Sleep easy

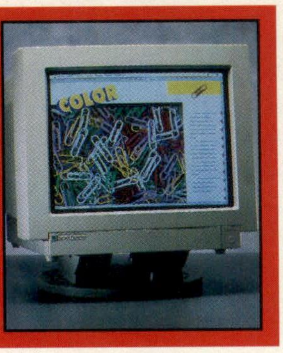
Amtech International has become the UK distributor of *Peace of Mind*, a diagnostic software package for the Mac.

The program tests around 150 aspects of the Mac's hardware, covering such things as memory, CPU, sound chip and interface ports. It can be set to run a brief automated test every time you start your Mac, or you can run the whole test procedure whenever you want.

Peace of Mind costs £147 from Amtech International, phone number 0202 476977.

Right: Sigma Designs' ColorMax 17, a 24-bit monitor for any Mac with a NuBus slot. It costs £2,932. Also in the range is the £1,056 ColorMax 15, designed for any Mac with built-in video. It will display 16 colours on most Macs, although connected to the Quadra it is capable of displaying 256 colours.

Sigma's ColorMax products are distributed in the UK by Aptec: 071 627 1000



Low-cost three-year warranties

The KRCS group of Apple Resellers introduced a new low-cost, three-year warranty for anyone who buys a Mac from one of the nine KRCS Centres.

Prices for the three-year warranty start at £105 for a Classic II 4/40, and include all parts and labour. This compares with repair costs of, for example, £142 plus labour for the replacement of a Classic II power supply.

For details of your nearest KRCS Centre, call the company on 0602 505352.

Apple applications

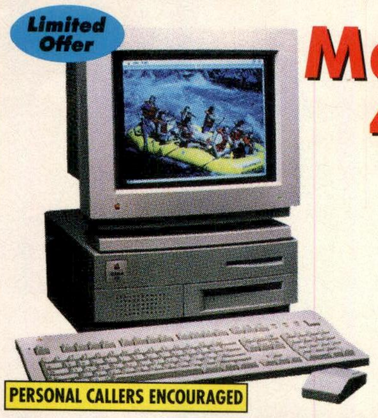
So exactly what do we use our Apple Macs for? According to US figures from InfoCorp, graphics programs come out tops.

Graphics	23.3%
Word processing	18.6%
Other	12%
File management	10.2%
Spreadsheets	10%
Desktop Publishing	8.5%
Utilities	6.6%
Communications	4.8%
Database	3.9%
Project management	2%

MacFormat/Online Systems coupon: one week's free connection to Air Warrior.

•MAKE THE MOST OF YOUR MAC•
JUST PHONE THROUGH YOUR VISA CARD NUMBER!

Limited Offer



Mac IIvi 4/40

1/2 Price!

- △ 4 megabytes of RAM fitted
- △ 40 megabyte internal Apple hard drive
- △ On-board video
- △ 3 NuBus slots, Accelerator slot
- △ **Limited Offer while stocks last!**

£799

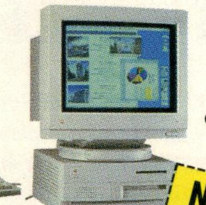
Price does not include monitor or keyboard

PERSONAL CALLERS ENCOURAGED

CENTRIS, LCIII, QUADRA 850

LCIII - 25MHz 030, 1 NuBus
Centris 610 - 25MHz 040, 1 Nubus
Centris 650 - 25MHz 040, Co Proc, 3 NuBus
Quadra 800 - 33MHz, 040, Co Proc, 3 Nubus
Powerbook 165C - 25MHz 030, 256 Colours
Plus - New Laser Printers, & Colour Scanner

Centris 610



Centris 650

NEW MACS!!

NEW MACS!!

Now In Stock at CW!!

Aldus Intellidraw

- △ New drawing programme
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- △ We dare you not to call before you buy

Lowest

Snooper *Plus* Norton Util:

- △ **Snooper** - diagnose and fix your Mac hardware & software problems
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SPECIAL BUNDLE!!

£99 for both!

Now Utilities plus Now Up-To-Date

- △ Utilities - The Best System 7 utilities
- △ UTD - Calender maker & event scheduler

Latest Versions

£114.95

Dynodex version 3

- △ Make and print your very own "filofax"
- △ Stores names, addresses, phone numbers

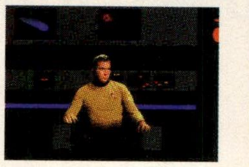
£59.95

DynoPage

- △ Print your documents to "filofax" size
- △ Dyno Organiser paper only **£11.95**

£49.95

Star Trek Screen Saver



- △ Prevents screen "burn-in"
- △ 1993's "must-have" utility!!

Limited Offer

£29

GAMES

Huge choice-silly prices!

Carmen Delux	Price of Persia
Heart of China	Red Baron
Kings Quest V	Ride of Dragon
Leisure Suit Larry 5	Space Quest IV
PGA Tour Golf	Willy Beamish

£25 EACH!!

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Packed with Entertainment

MassFM24/96
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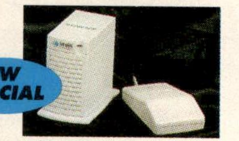

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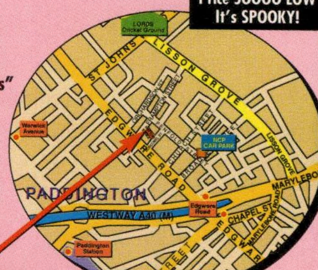

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Page layout power from PageMaker

Aldus has announced version 5.0 of its popular DTP package *PageMaker*. The new release will run virtually identically on both the Mac and PCs running *Windows*.

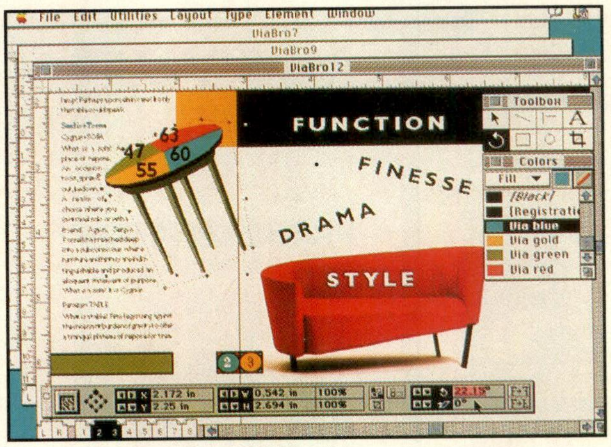
PageMaker 5.0 has more than 100 new features, which include:

- Full text and graphics rotation – previous versions of the program only allowed text to be rotated in 90° intervals.
- Multiple open documents.
- Built-in colour separation of *PageMaker* text and graphics, as well as imported CMYK TIFF, DCS and EPS files (previously users had to use the separate utility *Aldus PrePrint* to do this).
- Library palette for frequently used images.
- An increased range of import and export filters, including support for Kodak PhotoCD and the new TWAIN standard for direct scanning.
- Improved printing. Aldus claims that printing speeds will be significantly faster than before because the PostScript printing code has been completely re-written (*PageMaker* doesn't use the Mac's own printer drivers).
- Increased support for *Aldus Additions*.

According to Aldus, many of the new features are in response to customer requests for professional-level tools and controls and as a result, says Aldus UK's managing director Alasdair Boyle, *PageMaker 5.0* offers 'the power user – the creative professional – a serious alternative to *QuarkXPress*.'

PageMaker 5.0 for the Mac will ship 30 days later than the *Windows* version, and both should be available in the first half of this year. The program will cost £817, and anyone who bought *PageMaker 4.2* after January 1 this year will receive a free upgrade. Other registered users can upgrade for £176, or £88 from version 4.2.

Aldus UK: 081 568 8868.



PageMaker 5.0: support for multiple open documents and built-in colour separation are just some of the features that this new version offers.

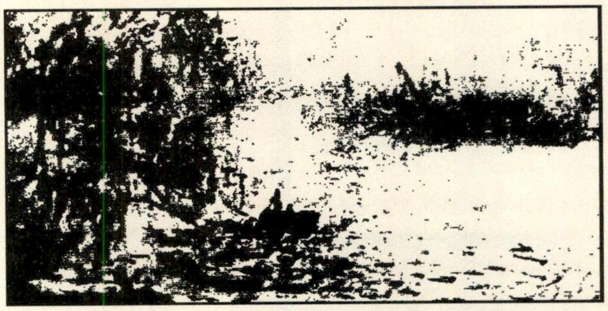
Accelerated colour for Centris

Radius has become the first company to release a 24-bit accelerated display card which conforms to the new 7-inch NuBus standard required by the Macintosh Centris 610 – although it will work on any Quadra or Centris computer.

Two PrecisionColor cards have been announced: the 24X/1152, which provides display resolutions of up to 1152 x 870 pixels, and the 24KX/1024, which provides up to 1024 x 768 pixels. Both cards are accelerated, support full 24-bit colour (16.7 million colours), and should work on virtually any monitor from 14-inch to 21-inch in size.

The cards should begin to ship at the end of February; the 24X/1152 costs £1,879 and the 24XK/1024 £1,174.

Radius UK: 0635 38531.



Painter 2.0 has more than 70 new features – including Monet mode!

Doing impressions

A new version of *Painter*, lauded for its emulation of natural painting methods, is now ready to ship.

The original version included brushes imitating the styles of Van Gogh and Seurat, and rapidly became popular.

Version 2.0 adds more than 70 new features, including the ability to colour separate images and perform photo composition, tools to make an image look as if it were being viewed through frosted or marbled glass, brushes for Cubist and Impressionist effects, and 'snap-to-grid'.

Painter costs £382 from Letraset: 071 928 7551.

Adobe moves towards application-independence

Adobe's *SuperATM*, which was launched recently, should prove a benefit to anyone suffering from the problems of font substitution.

The £129 utility removes the problem by automatically detecting if a font is not available and, if so, by substituting a generic typeface with the same font metrics (size, weight, style and so on). Although not a perfect replica of the original, the replacement is good enough for viewing on-screen and, in an emergency, for using to print from where the original is not available.

Currently, *SuperATM* only supports Adobe's own typefaces, although it is likely that future versions will support Type 1 fonts from other vendors.

The program also allows users to create documents with fonts which they do not own, by selecting the typeface from *SuperATM*'s menu.

SuperATM is another move forward in Adobe's development of *Acrobat* (*née Carousel*), the company's application-independent document viewing technology. This will provide users with the ability to open documents on their Mac even if they don't have the application which created them – for instance, a *QuarkXPress* document can be passed around a group of people without the need to buy each person a copy of the program.

Acrobat is likely to see the light of day towards the end of this year; until then, *SuperATM* provides a reasonable compromise – at least not everyone has to have all the fonts installed on their machine.

Adobe: 081 547 1900.

Colour by crayon

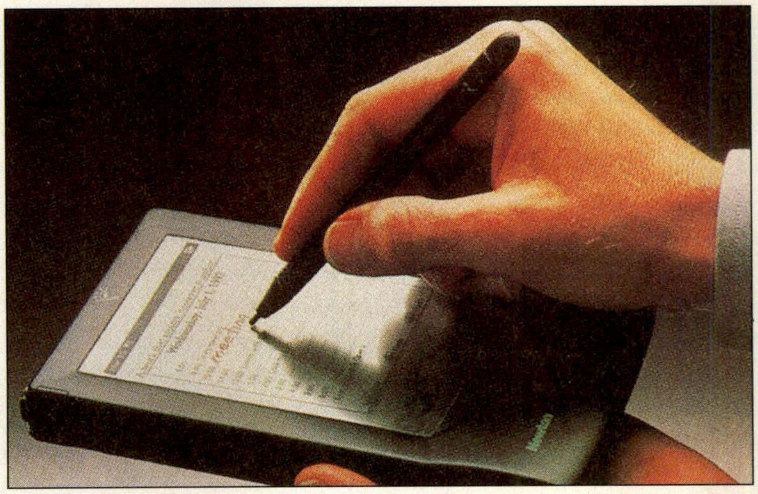
Dataproducts' new Jolt printer is the first to use the company's solid ink technology to provide 300dpi full-colour output.

Solid ink technology is a new advancement in colour printing, and so far only a couple of manufacturers have brought printers incorporating this technology to market. The ink is supplied as a crayon-like block, and is loaded into the printer as a solid. When printing, the ink is heated until it melts, then fired at the paper. When the ink resolidifies it bonds with the paper, which should result in a crisper image than is produced by many colour printing techniques.

The Jolt is a PostScript Level 2 machine which ships with 6Mb of RAM, expandable to 10Mb. It costs £5,399, and is available from Dataproducts on 0734 884777.

The name of the game...

Newton, Power PC, Caspar. You may have heard of them, but do you know what they actually are? In this first Futures page, Ian Wrigley takes a look at the technology behind some of the latest terms.



Newton is actually the term for a set of technologies to be used in hand-held computers, but it's likely that Apple will bow to popular pressure and give the name to its first machine of the type

In the Futures page of the magazine each issue, we will be telling you about what companies like Apple are doing on the leading edge of Macintosh technology – but in this first issue, we felt that it would be a good idea to bring you up to speed on just what some of the names which are bandied about by Mac *cognoscenti* actually refer to.

Newtonian ideas

The name which you've probably head the most about over the last 12 months is the Newton. Strictly speaking, this isn't a Mac at all. It's a set of technologies, on which a range of hand-held computers, known as PDAs (Personal Digital Assistants), will be based. However, everyone has begun to apply that name to the first hand-held Newton-based machine that Apple will produce.

The first Newton will be a pen-based (well, stylus-based) hand-held 'personal organiser'. It will have a small LCD screen, on which you write your information – the machine will then translate your handwriting into computer-based text. This alone is pretty impressive stuff, but add to that the built-in programs which are 'intelligent' enough to know that when you write 'Lunch tomorrow with Fred' what you actually want to do is open your diary, and mark a lunch appointment from 1pm to 2pm with Fred Bloggs – and then send him a memo confirming that – and you can see why people are getting so excited about the whole idea.

Unfortunately, the first Newton's shipping date has slipped so often that even the current estimate of mid-'94 looks unlikely.

Another problem has been the price. At £100 or £200, yuppies and technophiles across the world would be ditching their Filofaxes for a Newton. But the first model is likely to cost somewhere around the £700 mark, so the only people who will be buying are those enthusiasts Apple terms 'early adopters'.

After the first Newton, several other PDAs are likely to appear, from companies like Sharp as well as from Apple. Future PDAs should include things like mini CD-ROM players, mapping software (point out two positions on a map and the PDA will give you the shortest route between the two points, taking into account any traffic problems that it's received from a traffic control centre via its built-in antenna) and so on.

If it all sounds a little too space-aged to be true, don't be fooled: technology like this is already well on its way.

RISCy business?

The next most commonly heard term is Power PC. This is the name of a range of Macs – strictly, their processors –which are based on a new RISC (Reduced Instruction Set Computer) chip from microprocessor giant Motorola.

The whole thing has come about because of an alliance between Apple, Motorola and IBM. Apple and IBM will both build competing Power PC machines, which will be much faster than existing Macs (or IBM PCs, come to that). They will be able to run applications written for either Macs or PCs (as long as they will work under IBM's OS/2 operating system), as well as those written directly for the new machines. This means that there will already be a huge range of programs available when the new range comes on to the market.

The first Apple PowerPC should ship early in 1994. Predictions are that it will be a fairly high-end machine, both in terms of cost and speed – priced somewhere around the top end of the Mac range, and more than twice as fast as any Mac.

Does this mean that all 68xxx series Macs will immediately become redundant? Not in the least. Although in future years Apple is bound to concentrate more and more on the Power PC line, Mac applications will continue to be developed for the forseeable future – after all, more than 10m Macs have been sold, so there's a huge user-base available to developers.

A friendly ghost

Caspar is, so far, a technology that hasn't found a home. It's Apple's voice recognition software, and it made something of a hit in the newspapers when it was first demonstrated last year. Say 'Caspar, set my video recorder for *The Wonder Years* next Sunday' into a microphone, and your Mac will do the programming for you – it can work out start and end times and channel number from previously supplied information. Similarly, you could phone up your Mac and tell it to turn on the oven, lower the central heating or control anything else it's interfaced to.

At the heart of all this *Star Trek*-style fantasy is an 'intelligent' voice-recognition program. Unfortunately, since first demonstrating this Apple has remained rather silent about when we're going to see an actual, working product. It seems that at present the technology has been put on a back-burner as engineers are moved on to other projects such as the Newton.

There's another problem too: do you *really* want to work in an office where the staff shout at their Macs all day? *(Sounds like a certain consultant editor we know – Ed...)*

The future in brief...

■ Communication Intelligence Corp is now shipping its pen-based operating environment, *PenMac*, to Japan along with its MacHandwriter II pen input for Macs running on Apple's KanjiTalk 7 operating system.

PenMac makes Mac System software and applications pen-aware – users can select menu items and enter text directly from the pen. *PenMac* is expected to start shipping in the USA and Europe towards the end of this year.

■ Apple is rumoured to be discussing the possible licensing of its *QuickTime* multimedia technology to Japanese computer giant Fujitsu. Fujitsu could then incorporate *QuickTime* into a forthcoming CD-ROM drive, which will be sold with the company's range of Multimedia PCs.

Both Apple and Fujitsu are heavily involved in multimedia development; a collaboration between the two would mean that they were well placed to create *de facto* industry standards for the technology.

■ Nimbus Technology has announced a method of compressing up to 2.5 hours of video on to a standard audio CD. Playback is from the CD's digital output via a special adaptor.

This is exactly the sort of technology that CD-ROM needs to incorporate – and it will probably do so in the near future...

Lemmings

Once you've ripped the disk off the cover of **MacFormat,** you'll want to get down to the serious task of playing your *Lemmings* demo. Bob Wade helps you to work your way around the *Lemmings* dilemma

Begin...

Lemmings is one of the all-time classic games that has intrigued, delighted and infuriated players on virtually every computer format there is. It's perfectly suited to the Mac and has extra levels that mean you're getting 120 brain-boggling tests of your skill. Our exclusive demo on the coverdisk gives you four new levels that you won't find on any other demos.

Installation and loading

To play *Lemmings* double-click on the *Lemmings* application icon. You can do this either from the floppy disk or by copying all the *Lemmings* files on to your hard drive. To play in black and white you will need a Mac Plus, Powerbook, SE, Classic, SE/30 or Classic II with at least 1 Mb of memory (2 Mb under System 7.0) and you need to be running System 4.1 or higher. To play in colour you'll need an LC, LC II or Mac II series with 4Mb of memory and System 6.0.5 or higher with 32-bit *QuickDraw*.

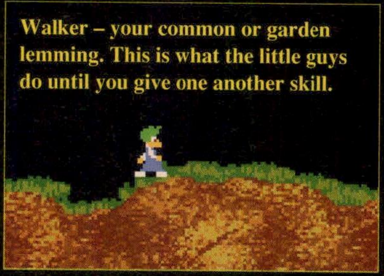
How to play the game

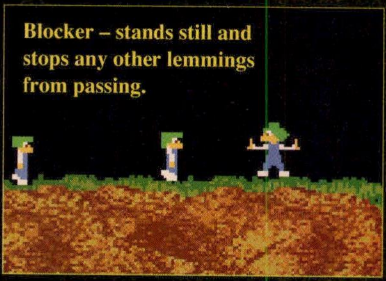
The basic idea behind *Lemmings* is very simple – a certain number of lemmings drop out of a trapdoor and you have to guide them to the exit door. Although the aim is simple, achieving it is usually devilishly complicated.

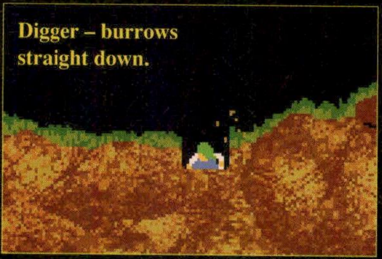
When a lemming drops out of the trapdoor it becomes a walker and will walk in one direction until it hits something it can't walk over and turns around, dies in one of the many gruesome traps in the game or walks out of the exit.

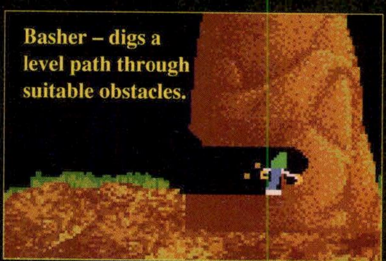
On each level of the game you have to rescue a certain number of lemmings within a set time limit – sometimes you'll have to rescue them all! To do this you have to use some or all of eight skills which you can endow single lemmings with.

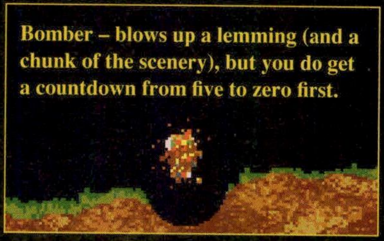
On each level you may only be given a certain number of skills to choose from, and as the levels get harder you'll have to be more and more precise about your timing and how and where you opt to use those skills.

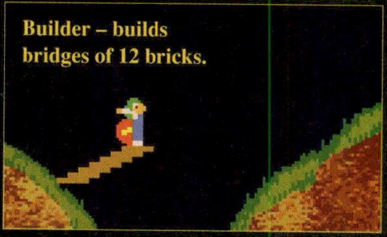

Walker – your common or garden lemming. This is what the little guys do until you give one another skill.

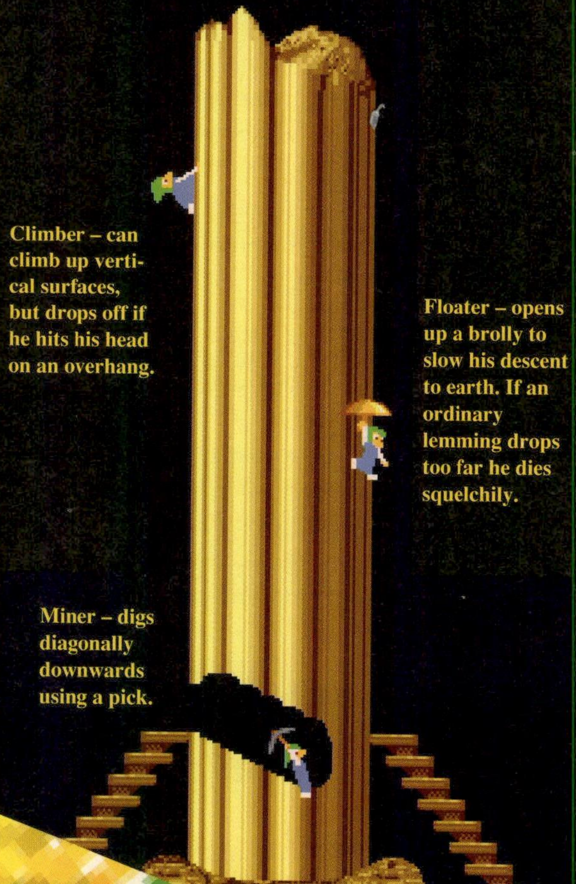

Blocker – stands still and stops any other lemmings from passing.


Digger – burrows straight down.


Basher – digs a level path through suitable obstacles.


Bomber – blows up a lemming (and a chunk of the scenery), but you do get a countdown from five to zero first.


Builder – builds bridges of 12 bricks.


Climber – can climb up vertical surfaces, but drops off if he hits his head on an overhang.

Floater – opens up a brolly to slow his descent to earth. If an ordinary lemming drops too far he dies squelchily.

Miner – digs diagonally downwards using a pick.

Keys and other commands

The mouse can be used to select any of the skill icons along the bottom of the screen, as well as to select the lemmings and to scroll the screen. Other on-screen commands you can select are the increase and decrease flow icons to the left of the lemming skills, and the 'paws' and 'nuke' options to the right of the skill icons – bet you can guess what they do!

Under the Game menu bar you can change the sound and music controls and also use the 'faster' option which will increase playing speed on older Macs at the expense of animation detail. On small monitors the menu bar is removed during play and can be accessed by pressing the key and the spacebar together.

[Option] – selects a lemming under the pointer who is not doing something else.

[Z] or left cursor – move skill icon left.

[X] or right cursor – move skill icon right.

[`] or [P] – pause.

[Spacebar] – changes the status bar function (timer, map, lemmings out and saved counts) to the right of the icon strip on mono screens.

[+] or up cursor – increases the speed of release of lemmings from the trapdoor.

[–] or down cursor – decreases the speed of release from the trapdoor.

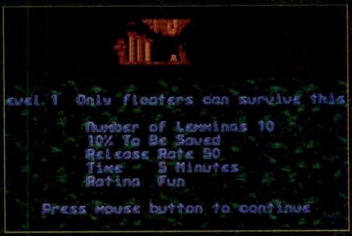
[Shift] – hurries lemmings on their way.

on the loose

The four levels

Fun

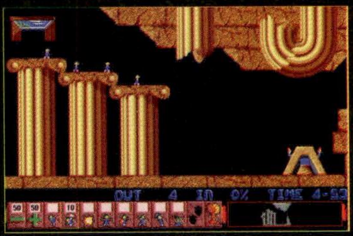
This one shouldn't prove too difficult because there's only one correct solution and the game does everything it can to point it out. Just relax and get the feel of the game – the next level's not so easy.



```
evel 1  Only floaters can survive this

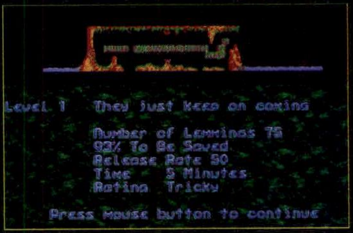
        Number of Lemmings 10
        10% To Be Saved
        Release Rate 50
        Time    5 Minutes
        Rating  Fun

   Press mouse button to continue
```



Tricky

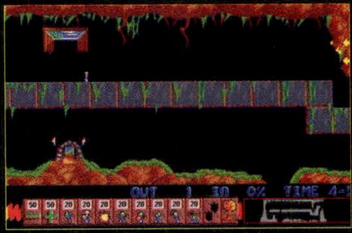
You can't dig through the metal floor, but you can choose to go either left or right. Don't let all your lemmings through until you've built the escape route, and avoid long drops.



```
Level 1   They just keep on coming

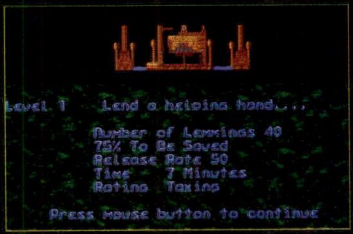
          Number of Lemmings 75
          93% To Be Saved
          Release Rate 50
          Time    5 Minutes
          Rating  Tricky

   Press mouse button to continue
```



Taxing

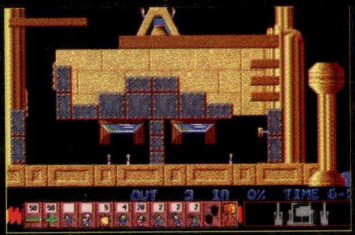
The traps are the main problem, and you must use those builders accurately. You also need to link up the groups from the two trap doors – how can you with a metal wall in the way?



```
Level 1    Lend a helping hand...

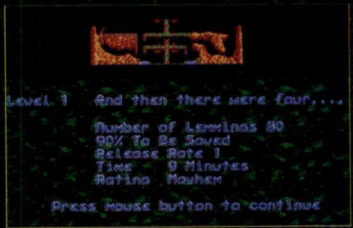
          Number of Lemmings 40
          75% To Be Saved
          Release Rate 50
          Time    7 Minutes
          Rating  Taxing

   Press mouse button to continue
```



Mayhem

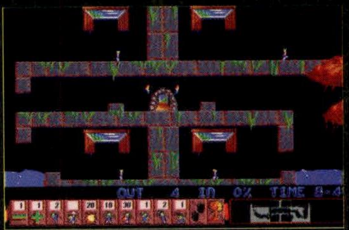
Nasty – lemmings pour out of four doors. Use the pause key and tackle the top two doors first, but don't let big, unmanageable groups come out below before doing anything. Time is ample.



```
Level 1   And then there were four....

          Number of Lemmings 80
          90% To Be Saved
          Release Rate 1
          Time    9 Minutes
          Rating  Mayhem

   Press mouse button to continue
```



Pause button

In most games the pause button just allows you time to think or answer the phone, but in addition to that on the later levels of *Lemmings* you positively have to use it to keep track of what's going on. Time limits get shorter and you have to do several things at once, so get used to using the pause option on the keyboard. This way you can switch between areas of the screen without any passage of time – particularly useful when you've got more than one builder going or lemmings coming out of more than one trap door.

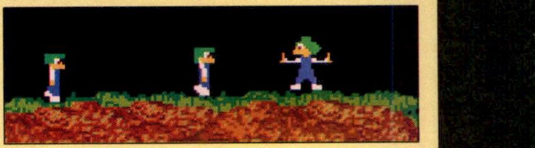
The pause is also useful when you've got to give a lemming a skill in a very short space or in a precise position. Rapid double-taps on the key can advance the action until he is in exactly the right spot and you can unpause and activate the skill at the same instant. The timing takes practice, but it's worth learning.

Option key

When you hold the [option] key down you can assign a skill to a lemming who isn't already doing something. The usefulness of this may not be instantly apparent, but for example, if you're building a bridge and need quickly to create a blocker without stopping the builder, you can safely do it with the [option] key.

Quick screen movement

Getting about some of the bigger levels can be a tad tedious, so there are two quicker methods than just scrolling the screen by moving the cursor to the left or right edges. You can speed the scrolling up by holding down the [option] key or you can use the micro map in the bottom right of the display – just click on the section of the micro map you want to go to, and the main display flicks instantly to that point.



Blockers

Blockers are selfless individuals whose will-power saves many a lemming from an early demise. But usually, creating one means he's not going to be going home to his family at the end of the day. The problem is that a blocker can't be turned into anything else, he just stands there resolutely shaking his head. However, there is one way to save these poor souls if you must – removing the ground they are standing on. You can do it with a bomber, but that blows up another lemming, or you can do it with a miner. If you get the digging position right the miner slices the ground out from under the blocker, who falls and reverts to an ordinary walker. For emergencies only, but it might save you one day.

Builders

Builders always put down 12 bricks unless they run into something before that. Get into the habit of counting the builder down so you know when to start him building again, or listen for the three brick countdown you get as a sound effect.

Another trick: wait until they shrug their shoulders after 12 bricks and let them take half a step before clicking on them to build again. This can sometimes get you those few extra pixels – and so can building on top of an existing bridge.

On some levels you have to build particularly long bridges high into the air. If you can't block the hordes of lemmings falling to their deaths off the unfinished bridge, try to build a second bridge underneath them to halt their fall.

And remember: if you start builders building shortly before a blocker, they will turn around at the blocker and continue building in the other direction. If you want to go over the blocker, make sure you build from far enough back.

Skills

A few other things to remember about the lemming skills are that diggers and miners keep going until they fall, bashers bash until there's nothing in front of them and climbers and floaters retain those skills until they escape or die.

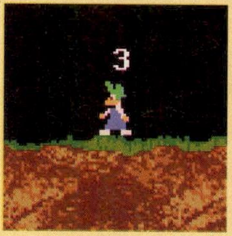
Giving the game away

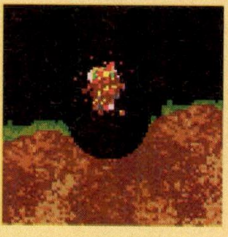
Bombers

Bombers aren't just for getting rid of blockers – they're useful for more than that. When a bomber explodes he destroys some of the scenery around him as well – but fortunately not any nearby lemmings. This means you have to be careful where you put blockers if you've got to blow them up later, because they might create a hole that allows the lemmings to fall to their death or create a wall they can't walk up.

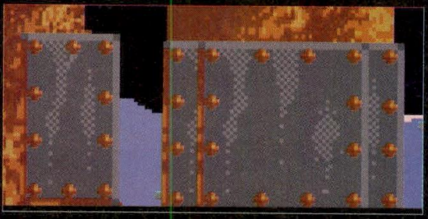
Sometimes you will actually want to blow holes in things in order to get through them. You could try to time the countdown so that the bomber explodes in the right place, but if you've got blockers as well just stop the bomber as near to the obstacle as possible and then let him have it – history will remember him well.

The 'nuke' option in effect turns every single lemming into a bomber. It's absolutely no use – it just aborts a level you can't finish – but it looks great!





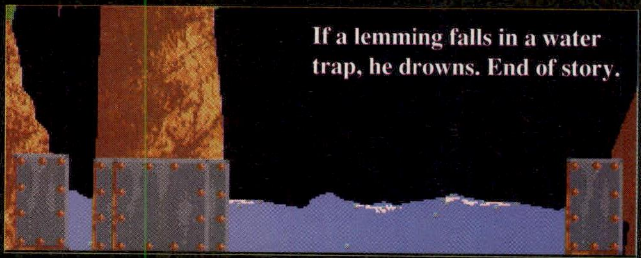
Metal blocks



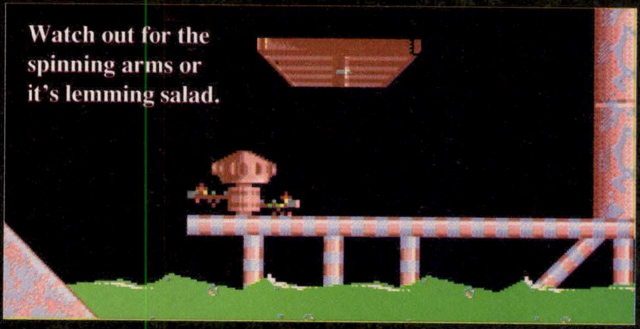
Watch out for metallic looking scenery because this can't be bashed, dug or exploded away – you have to go round it.

Traps

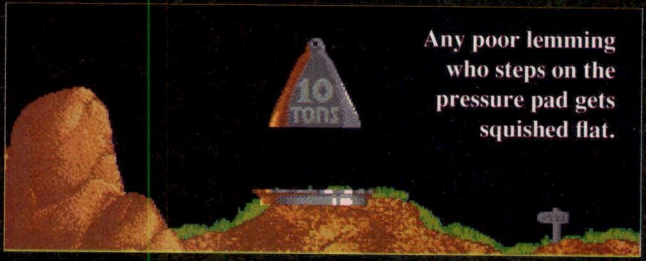
It won't be long before you discover that there are loads of different traps in the game, and some are deviously hidden away. We're not going to tell you what they all are, but here's a hint: whenever you hear a squelching, gurgling, scrunching, sizzling, splatting, snapping, crunching or other odd sound effect – you're in trouble.



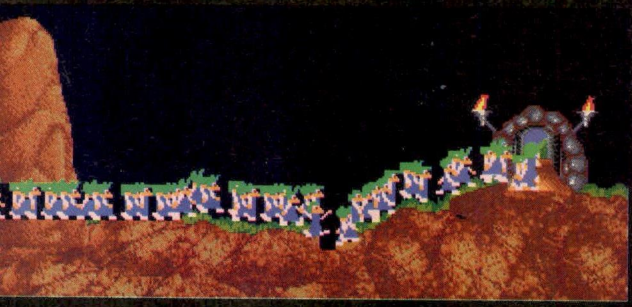
If a lemming falls in a water trap, he drowns. End of story.

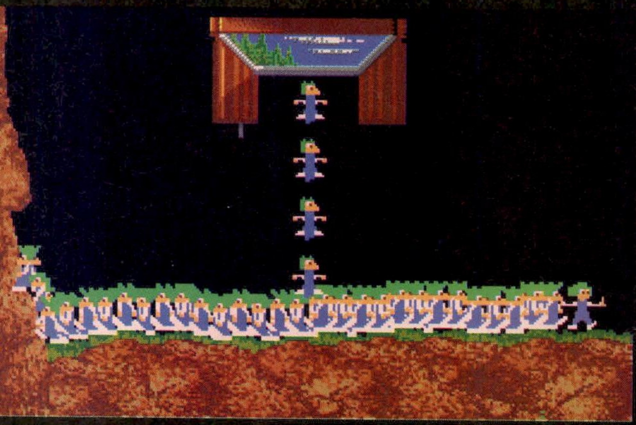


Watch out for the spinning arms or it's lemming salad.



Any poor lemming who steps on the pressure pad gets squished flat.





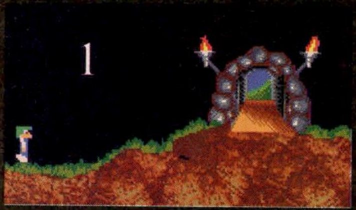
Time limits

Some of the time limits for the levels are frighteningly short and you will have to increase the flow of lemmings out of the trap door. Some levels in the main game literally take you down to the last second to complete.

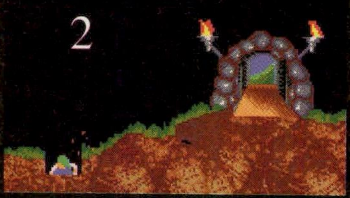
One trick to bear in mind is to speed up the appearance of the lemmings until you get a few from the end and then slow them down again for the last few. You need to do this on a couple of levels in the full game so that you can isolate a few lemmings and have them far enough apart that you can select individuals easily.

Turning around

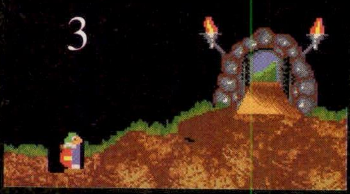
Sometimes you will need to turn a single walker around without using a blocker and there's no obstacle that will do it for you. There are a couple of possibilities – the easiest is to build until the builder hits his head on something or builds into a wall. If you can't do that, try this:



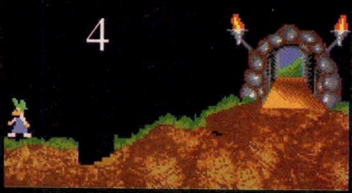
Here's your walker plodding merrily along to the exit and you need to turn him around before he gets to it.



To turn him around, first of all you turn him into a vertical digger and let him get a few scoops down into the ground.



Now turn him into a builder and he will start building into the wall in front of him. When he hits the wall he stops building and turns around.



If you didn't let him build the hole too deep the walker will step out and head back in the direction he came from.

Disinfectant 2.9

Now, with your copy of *Disinfectant 2.9,* you can make sure your Mac is protected from virus infection. Kellie Simmons takes you through the installation process

Disinfectant may not sound as interesting, enjoyable or glamorous as saving cute little creatures from certain death, but it can save your Mac from certain danger – the virus.

Luckily, now you've got your own copy of *Disinfectant* from MacFormat, you can give your Mac maximum protection from the harm that viruses can cause.

There is a long history of computer viruses – Scores, ANTI, Frankie – the majority of which are harmless, but it's best if they're nipped in the bud as soon as possible, just in case your Mac is visited by one of the fatal few.

Unless you download files via a modem, viruses will arrive on your Mac via floppy disks. Viruses are compact portions of code designed to reproduce themselves whenever they find they have access to other floppy disks, hard disks or networks. In this sense they may well be just benign, in that they're not designed to have any other effect than to copy themselves. But, human nature being what it is, virus authors have added other sections of code which may cause all manner of disruptive actions. This could include reversing the actions of your mouse, or causing your screen to fill up with all kinds of garbage, or wiping the entire file directory on your hard disk. To make matters worse, you can't really tell whether a virus is benign or not until it's too late – so what's the solution? Easy – slaughter the lot of 'em. That's where *Disinfectant* comes in.

Using Disinfectant

When you insert a floppy disk copy of *Disinfectant*, double-click on the program's icon and you'll find yourself confronted with the start-up screen. Select Help from the 🍎 menu. Once the new screen is visible, click on Quick start in the right hand directory and you'll be looking at a very thorough user guide which not only tells you how to use the program, but also details all known Mac viruses, their origins (where known) and effects.

You can only use *Disinfectant* if your Mac has System 6 or above. You should make an 'emergency' disk containing the program and a copy of the System file; the procedure is different, depending on whether you are running System 6 or System 7 on your Mac – see the panel below for details.

You are then ready to run *Disinfectant 2.9*. The next step for Mac users with hard drives is to install the protection INIT. Select Install Protection INIT from the Protect menu – this places a copy of *Disinfectant* inside the System Folder on the hard drive (or in the Extensions folder if you are running System 7).

To run INIT you'll have to restart your Mac – a message will appear on your screen asking you if you want to restart. After restarting your Mac you should find a little Disinfectant protection INIT icon at the bottom left of your screen, along with the icons for any other startup items that you already have installed.

Disinfectant lets you know when everything is scanned, reports at what time the run was completed, and gives you a summary of the whole process (number of files, how many errors and total number of infected files). If there are any errors, it gives you a more detailed explanation. Just press ⌘ [?] and click on Error Message to view the information.

Remember that you'll need to unlock each floppy disk before you can disinfect it – but don't forget to lock it again when you've finished scanning.

It's likely that you'll rarely need *Disinfectant*, but it's nice to know it's there just in case. **mf**

Why you need a back-up

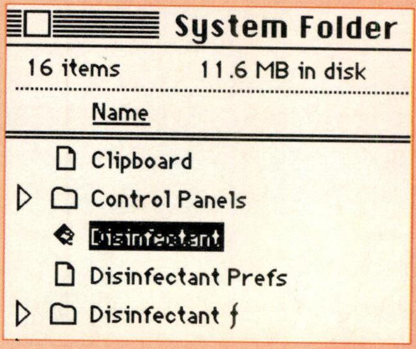
It's important to make a back-up copy of *Disinfectant* because if your hard drive copy becomes infected, it will refuse to run. Backing up *Disinfectant* is the same as backing up anything else on your hard drive, but you also need to create an 'emergency' System disk, in case your System file is corrupted.

System 7 users:

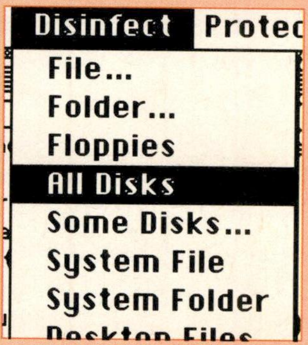
- After backing up *Disinfectant* onto a floppy disk (copying it like any other disk), lock your back-up copy by sliding the plastic tab on the back so that you can see through the hole. Label the disk '*Disinfectant* back-up'.
- Make a copy of your Apple Disk Tools floppy (this is included with every System 7 Mac sold by Apple and is part of the standard Apple System 7 release).
- You'll have to start up your Mac with the Disk Tools copy, then eject it and put in your Disinfectant disk.

System 6 users:

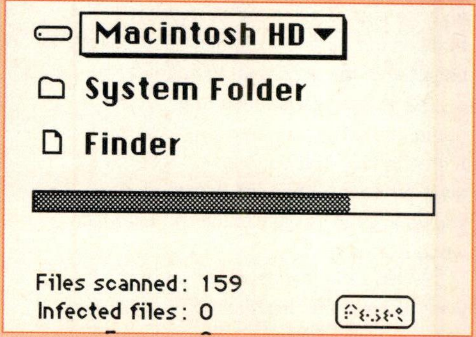
- You need to make a virus tools floppy which must include a System File and copy of *Disinfectant*.
- Don't copy the System File from your hard drive – it will probably be too big to fit on the floppy disk along with your copy of *Disinfectant*. You will have to copy the original locked System 6 Apple System Tools disk.
- After file copying is complete, click on the *Disinfectant* icon and use the **Set Startup** command in the **Special** menu to make sure that *Disinfectant* will run on startup.
- Eject your new Virus Tools floppy disk, lock it and label it 'Virus Tools'.



To use *Disinfectant,* first select the application by clicking twice on your *Disinfectant* icon to open the application

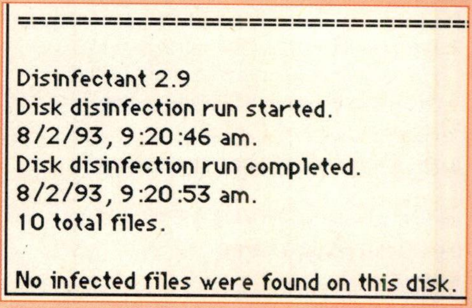


Once you are in the application, draw your mouse to the *Disinfectant* menu and click on **All Disks**



```
Files scanned: 159
Infected files: 0
```

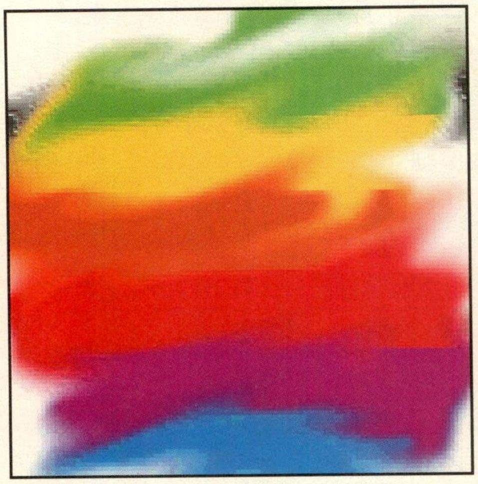
Disinfectant will then scan all of your files for any known viruses. All you need to do is wait while it does its stuff



```
Disinfectant 2.9
Disk disinfection run started.
8/2/93, 9:20:46 am.
Disk disinfection run completed.
8/2/93, 9:20:53 am.
10 total files.

No infected files were found on this disk.
```

Once scanning is complete, *Disinfectant* supplies you with a report on each disk. This will give you the good news or the bad – whether or not it has found any infected files



TALK

Pleased, peeved, irate, enraged, amused, amazed, stunned or astounded? Whatever your feelings – about anything in the Mac universe write in and tell us!

Okay it's the first issue ever so how could we have any letters to print? Ah ha! Cunningly, both Malcolm Bebb from Poole and Stephen Daniels from Leicester realised our potential dilemma and bailed us out with the letters on the right.

But this is your chance to get your name into print too – and make yourself a little money in the process. I'll be giving away tenners to the best letters so if you've anything to say about the Big Mac world – send it in.

So here's a few debates you might want to enter into in the meantime:

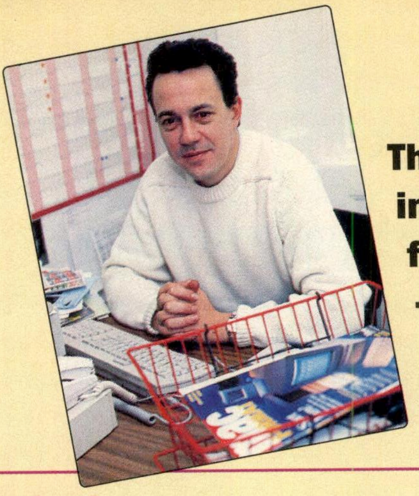
1. Now that the price of Macs is lower than ever, why doesn't the price of software come down too?

2. Piracy is killing the Mac – just look at the number of games that aren't being converted because of illegal copying

3. Or, are the two by any chance related?

And be sure to tell us what you think of the mag! Drop us a lineto:

Andy Storer
Letters Pages
MacFormat
30, Monmouth St
Bath, BA1 2BW



The man with the in-tray just waiting for your letters... – Editor, Andy Storer

Welcome indeed

I see that you are bringing out a new Mac magazine called **MacFormat**. As a full time Macintosh user I am looking forward to the launch.

Although the other Mac magazines run articles for new users, they cater mainly for professional and business people. Apple's new machines, ongoing price reductions and revised market policies are making the Mac accessible to a different range of users – and I don't think that the present magazines can really cater for these users without moving away from their existing readership.

The fun side of the Mac seems to receive very little attention, and the range of PD and shareware for the Mac is largely ignored. I hope **MacFormat** will cover these areas and carry more articles of interest to the Classic or LC user. I shall be very disappointed if it leans too far towards DTP – however, I sincerely hope I won't be disappointed.

Malcolm Bebb
Poole, Dorset

And you won't be disappointed Malcolm... you've hit several nails firmly on the head there and you can rest assured that we'll be catering precisely for the needs you express.

The year ahead is going to be an exciting one for all Mac enthusiasts and MacFormat **will be there to make sure you get the best in news, reviews, tutorials and advice**

The best game ever

Good to hear someone's at last bringing out a Mac magazine which isn't just targeting business users. This is because I'm sick of wading through page after page of effusive reviews of kit I can't afford. And I'm glad you're going to start devoting space to games because, whatever the make of computer, it has games-machine potential.

However, as yet there are few decent games for the Mac. Okay, so HMV have started stocking popular Mac titles in their bigger stores – IBM variants for the most part – and it is common knowledge that when the going gets tough (e.g. *Flight Simulator*) the poor old 68000 processor will start wheezing under the pressure of GUI plus graphics plus all that processing.

And that's the point – this is like asking a pensioner to go 16 rounds with Tyson. The argument goes that if you just want to play games then buy a GameBoy or GameGear. Fun should be portable – and surely fun and desks don't mix, even at the office party?

Or so you'd think if you went asking for games in the traditional Apple retailers. The suits who come out from the back office, curious to meet a real, live non-corporate Macintosh user, will invariably look at you with that friendly-but-quizzical look reserved for people who don't use their Mac in the office. A kind of Macintosh ethnic minority.

Games? Proper games? You mean you want to buy an IBM-type, Sega-type, Nintendo-type, Amiga-type game? This is like asking the staff at Virgin Records for the Madonna video, book and a bottle of baby oil.

They claim you don't really need games on the Mac. And up to a point they are right because the Mac's entire operating system is a kind of game. And so are its applications.

The best game on the Mac for my money is changing the way things operate at a very basic level with the Mac's Graphical User Interface. Good though it is, you can make it better. With programs like *AutoMenus*, with its automatic drop down menus on demand whenever you touch the Menu Bar; and *On Cue*, which allows you to stack all of your regularly-used applications in one menu to operate from Multifinder.

But it needn't be major customisations – look at *Fruits of Passion* which simply allows you to change the Apple in the Menu Bar to other fruits or objects. And most of these widgets are shareware.

There is a truism that the chances of your machine crashing with potential loss of data are directly proportional to how interesting it is to use and how much you have customised it. And I reckon this is the real adrenaline source of computing. Forget arcade games.

Stephen Daniels
Anstey, Leicester

Points taken Stephen, I'm the first person to agree that using the Mac can be a game in itself… and it might explain the appeal of the Mac-clone Windows operating system on PCs.

But as you'll find in this and future issues of MacFormat **there are plenty of great games for the Mac, and now that the 68030 is the entry level processor for all new Macs we can rest assured that fast-action arcade-style outings are going to be thick on the ground. Just check out the review of *Red Baron* in this issue.**

Beat that!

In the next issue(s) of **MacFormat** we're looking forward to printing details of the most expensive or over-priced pieces of software and hardware you can possibly buy for the Mac. Not that we'll ever bother reviewing any one of them, it's just we all know the Mac is taken very seriously and we'd just like to see how far some manufacturers go.

We'll send a fiver to whoever discovers the most expensive example in each category. So just send in the advertisement, press release or review you've seen to: 'Beat that!', **MacFormat,** Future Publishing, 30 Monmouth St, Bath, BA1 2BW. Meanwhile, here's the top two budget busters we found while compiling Chooser on p108

This month...

Top Scoring Software:
Marketing Department – £5,875!
A package for market intelligence gathering and sales forecasting...
Top Scoring Hardware:
Scitex SmartScanner PS – £65,154!
A huge, colour flatbed scanner which won't work with a Classic...

Cruising the keys

Have you ever spent five minutes cruising around various menu items and icons with your **[Option]** key held down? Why not try it? You'd be surprised at the hidden features lurking in even the most innocent looking applications. And you'll be even more surprised if you send us your revelations and we print 'em – you'll receive a fiver – or something! So, just send your serendipities on a postcard to: 'Optional Moments', **MacFormat,** Future Publishing, 30 Monmouth St, Bath, BA1 2BW.

Cruise control...

Here's a couple of **[Option]** key tricks I've found for users of 68030-based machines like the Classic II, LC II, IIvi, IIvx, IIcx, IIci, IIsi, IIfx and LC III:

1. Go to **Control Panels** in your Apple menu, and open the **Memory** icon. Turn on **Virtual** memory hold down the **[Option]** key, click on the **Hard disk** dialogue box and… hey presto!

1. Go to **Control Panels** in your Apple menu, and open the **Monitors** icon, hold down the **[Option]** key and click on the figure **1** in the small box...

Tim Smith, Bath

...Thanks Tim, you've won a CD single of Arrested Dev's Mr. Wendell – enjoy!

You won't believe this!

And while we're at it, how about the most way-out application you've ever seen? Like the one below. If you come across software or hardware which takes the esoteric to ludicrous levels then be sure tell us.

And guess what? We'll send five chunky coins to the most weird and wonderful example we receive. So send 'em to: 'You won't believe this', **MacFormat**, Future Publishing, 30 Monmouth St, Bath BA1 2BW.

Pull the other one....

MacTooth is… a package for dentists priced at a mere £2,056 (no wonder they're ditching the NHS) which enables a practice to monitor tooth treatments. Ouch!

Get in touch

mac
FORMAT
FREE
Services

Starting next issue we're going to be running free ads to any private individual who wishes to buy or sell Mac gear - check out the form on page 76. In fact we're going further than that – we want to include **Contacts Wanted**, **Help Wanted**, **Help Offered**, **SwapShop** and **Fanzines**. So if you want to link up with what is bound to be an increasingly massive number of fellow **MacFormat** readers just fill in the form below and send it to: 'Readers Ads', **MacFormat**, Future Publishing, 30 Monmouth St, Bath BA1 2BW.

READER ADS FORM

Name ....
Address ....
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Postcode ....
Telephone ....
Category Contacts Wanted Help Wanted
Help Offered SwapSwap Fanzines
please tick

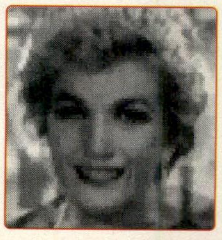
I have read and understood the conditions for the inclusion of my ad.
Signature

....

This month's *MacFormat* was produced on an AppleTalk network of two IIvis, a IIsi, a IIcx, an LC II, a Classic II and a Quadra 700, all running System 7.1. In-house copy was written in *WordPerfect* 2.1, with external words arriving via modem running *ZTerm* comms package from CIX on-line conference board. Pages were laid out and lovingly fondled with *QuarkXPress* 3.11, *Freehand* 3.1, Adobe *PhotoShop* 2.0.1, and Adobe *Illustrator* 3.2. Favourite office pastimes this issue were *Pararena* and swearing at *Lemmings*. Next *MacFormat* is out on May 4th. See ya there...

Win a year's subscription!

While doodling about with *Morph* - reviewed on page 46 - we came up with a neat idea for how you can win a year's subscription to MacFormat. All you have to do is work out which famous womens' faces we merged to make up the rather blurred but dreamy young morphette on the right. You got it? Just send the names on a card to: 'It's So Easy', **MacFormat**, Future Publishing, 30 Monmouth St, Bath BA1 2BW.



THE MOST ADVANCED SOFTWARE ENTERTAINMENT EXPERIENCE

SimEarth™

Take charge of an entire planet from its birth until its death - 10 billion years later. Guide life from its inception as single-celled microbes to a civilization that can reach for the stars.

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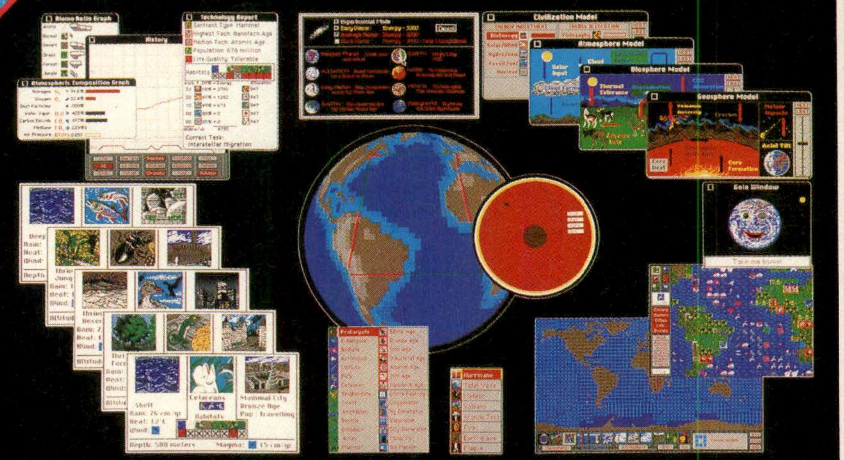
Control your planet's Geosphere, Atmosphere, Biosphere and Civilizations.



Place life-forms on the land and in the seas. Put various levels of civilization where you want them. Use special Terraforming Tools to change an inhospitable world into a paradise.

Unleash volcanos, earthquakes, meteors, tidal waves, and other natural (and unnatural) powers to reshape your planet.

View the entire world as either a flat projection or a spinning globe. Multiple maps track everything from continental drift to biological diversity. Close-up views, for inspecting and modifying planets, display climate, life, and data layers.

- Promote life
- Move mountains
- Create and destroy continents
- Terraform hostile worlds

- Influence evolution
- Cultivate intelligent life-forms
- Create civilized dinosaurs, mollusks, mammals, and more

- Guide your intelligent species through the trials of war, pollution, famine, disease, global warming, and the greenhouse effect.

The Living Planet

Inspired by James Lovelock's Gaia hypothesis, SimEarth simulates the Earth as a single living organism.

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keylines are for positioning
oses only and must not be printed.
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trademark protection
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dep: 6.47am

The Mac's the best

– and whatever you use it for, you can buy the finest software on any computer

this is why........

DESIGN

Without doubt, the Mac has the best design software of any personal computer today. In desktop publishing, computer aided design and modelling, illustration and photographic manipulation, the machine has some of the most sophisticated software available.

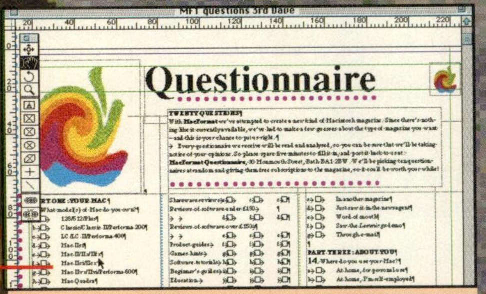
In DTP, Apple, along with Aldus and Adobe pioneered the revolution in PostScript print technology and the Mac quickly became the de facto desktop publishing platform; with a growing market dominance serving to attract a mass of other design software.

With the emergence of **Aldus PageMaker** and **QuarkXPress** as the leading DTP packages, along came both specialised variants targeted at specific needs like **Ventura Publisher** and **Multi Ad Creator** and more generalist, affordable programs like **Personal Press** and **PUBLISH-IT! Easy**. A host of additional publishing tools added further enhancements. Greater control over type was high on the list of desktop publishers' demands and applications like **Fontographer, LetraStudio, TypeStyler, Type Align, Type Manager** and **Typestry** brought significant enhancements to the design, placement and appearance of screen and print fonts.

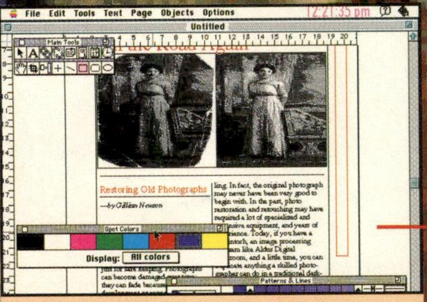
While the PostScript capabilities of **FreeHand** and **Illustrator** blurred the boundaries between DTP and illustration, the power of computers to transform wire-framed technical drawings into solid 3D models led to the release of a number of first-class CAD packages. **Infini-3D, MacRenderman, Ray Dream Designer, Swivel 3D** and **StrataVision** brought completely integrated three-dimensional modelling, animation and rendering.

The growing demand for complete control over desktop colour in page make-ups resulted in applications designed to turn the Mac into an image processing studio. **ColorStudio, Digital Darkroom, Photoshop** and **Image Studio** all compete in the lucrative market of photo-retouching and manipulation, in many ways superseding the early draw and paint packages.

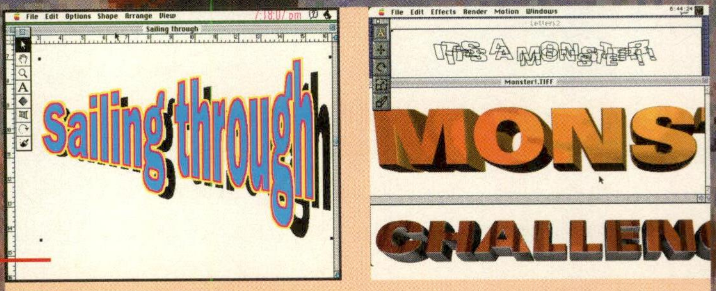
While graphics packages like **IntelliDraw, Canvas, Pixel Paint Pro** and **Studio 8** now provide many of the features of expensive CAD packages and some of the imaging facilities of darkroom applications, it's perhaps the more freestyle programs like **Morph, Sketcher** and **Painter** which really excel in the desktop art field.



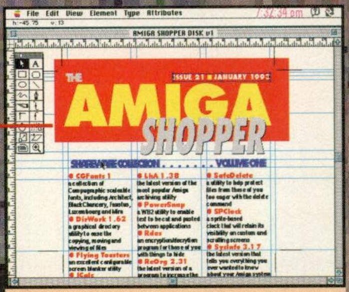
The top two desktop publishing programs *PageMaker* and *QuarkXPress* have everything you need to produce your own documents to professional standards. *QuarkXPress* (above) is so good, we use it to produce ***MacFormat!***


File Edit Tools Text Page Objects Options
Untitled
Restoring Old Photographs
Display: All colors

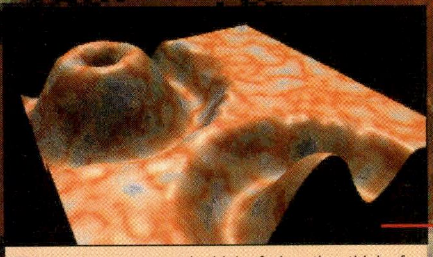
If you don't need the flexibility of a full-blown DTP program, there are packages which will do a lot of the work for you. You just give *Aldus Personal Press* your text and pictures, and it lays out the document for you automatically



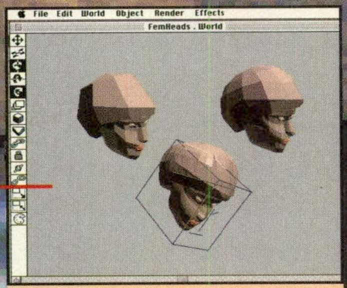
To liven up the text in your headlines or headings, you need a program like *TypeStyler* or *Typestry*. Both enable you to enhance standard fonts in a wide variety of ways – by adding colours, outlines and shadows. While *TypeStyler* will run on virtually any Mac, *Typestry* specialises in realistic lighting and glossy 3-dimensional effects and needs real power



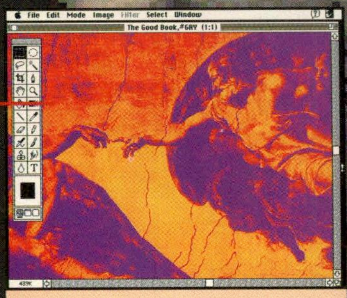
FreeHand is a structured drawing program, which means you can use it to build up pictures from collections of objects – these can be letters, lines, boxes, or other shapes. It's ideal for combining text and graphics to create logos, diagrams or other illustrations



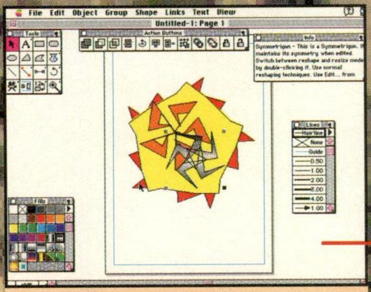
This is what most people think of when they think of computer graphics - glossy, brightly coloured images with lots of clever texture and shadows. *Ray Dream Designer* lets you create pictures like this – though they can take a while



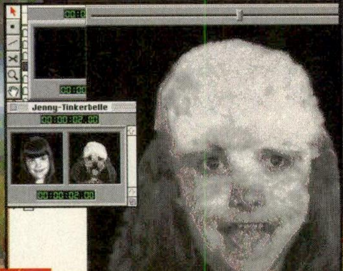
Swivel 3D Pro provides full control over modelling wire frame structures into fully rendered images – though all rendering, whatever the software and unless you own a Quadra, takes absolutely aaaaages



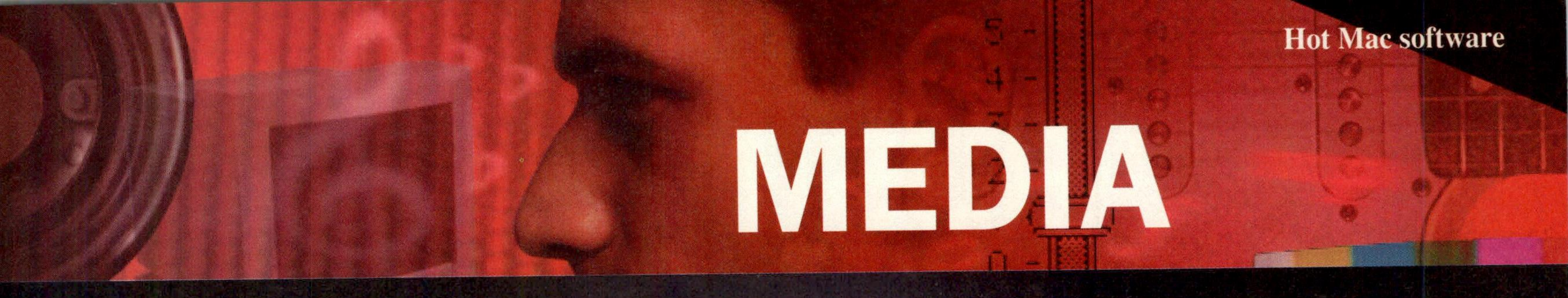
Adobe Photoshop gives you complete control over almost any kind of Mac picture file you can name. It has facilities for adjusting the colours, contrast, and resolution of an image, as well as enabling you to combine two pictures



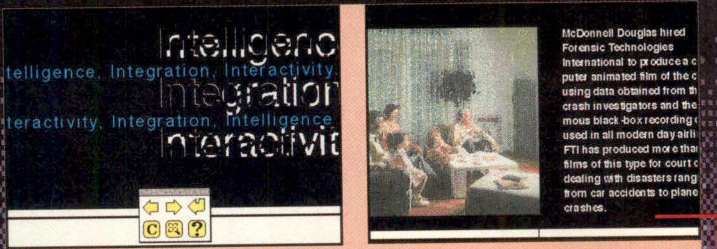
Aldus IntelliDraw is a structured drawing program with a difference – its 'intelligent' drawing tools make it easy to change your illustration if you change your mind. Picture elements can be linked together so that they update themselves automatically



Join the cinema special effects crew with *Morph* – and catch our feature on page 46!

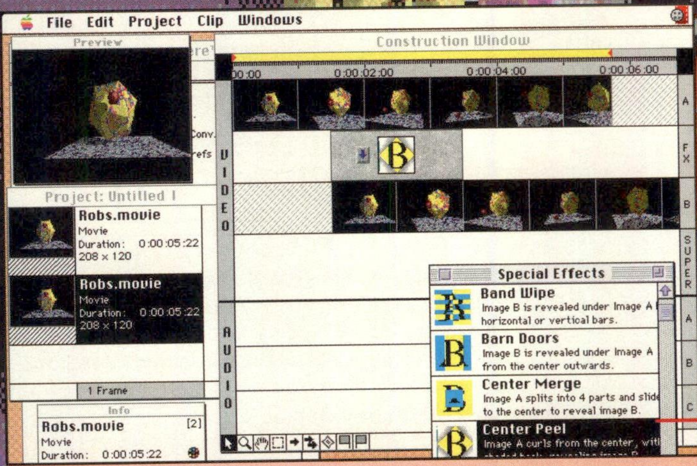


MEDIA


Intelligenc
telligence, Integration, Interactivity.
Integration
teractivity, Integration, Intelligence,
Interactivit

McDonnell Douglas hired Forensic Technologies International to produce a c puter animated film of the c using data obtained from th crash investigators and the mous black-box recording used in all modern day airli FTI has produced more thar films of this type for court c dealing with disasters rang from car accidents to plane crashes.

SuperCard took up where *HyperCard* left off and added colour support – its use as an application builder is best illustrated by *MediaMaker* – a *Premiere*-style application. Providing a button-based system of navigating linked cards containing graphics, sounds, animation and text, one of *SuperCard's* most useful features is that of being able to create your own stand-alone applications


File
Edit
Project
Clip
Windows
Preview
Construction Window
0:00:02:00
0:00:04:00
0:00:06:00
Project: Untitled 1
Robs.movie
Movie
Duration: 0:00:05:22
208 x 120
Robs.movie
Movie
Duration: 0:00:05:22
208 x 120
1 Frame
Info
Robs.movie
[2]
Movie
Duration: 0:00:05:22
VIDEO
AUDIO
A
FX
B
SUPER
A
B
C
Special Effects

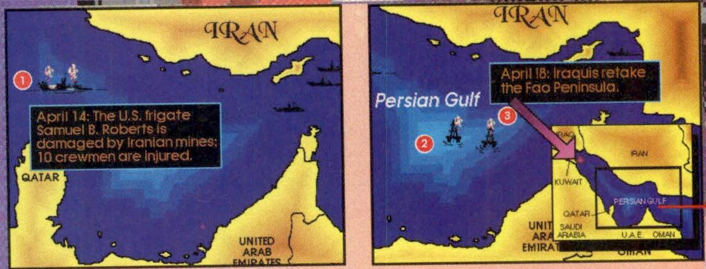
Band Wipe
Image B is revealed under Image A horizontal or vertical bars.

Barn Doors
Image B is revealed under Image A from the center outwards.

Center Merge
Image A splits into 4 parts and slide to the center to reveal image B.

Center Peel
Image A curls from the center, wit

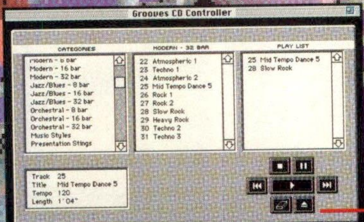
Take your Mac to the movies! *Adobe Premiere* is a sound and video editing program for creating and manipulating *QuickTime* digital animations. You can take images from video or illustration programs, put them together in any order you like, add a soundtrack or special effects, then view the finished product, all on the screen of your Macintosh


IRAN
1
QATAR
UNITED
ARAB
EMIRATES
IRAN
Persian Gulf
2
3
FAO
IRAN
KUWAIT
PERSIAN GULF
QATAR
SAUDI
ARABIA
U.A.E.
OMAN

April 14: The U.S. frigate Samuel B. Roberts is damaged by Iranian mines: 10 crewmen are injured.

April 18: Iraquis retake the Fao Peninsula.

Macromind's *Director* offers excellent handling of all kinds of text, graphics, sound, illustrations, scans – but its complexity does take a bit of getting used to. Once mastered however it's a powerful interactive presentation tool


Grooves CD Controller
CATEGORIES
MODERN - 32 BAR
PLAY LIST
Modern - 8 bar
Modern - 16 bar
Modern - 32 bar
Jazz/Blues - 8 bar
Jazz/Blues - 16 bar
Jazz/Blues - 32 bar
Orchestral - 8 bar
Orchestral - 16 bar
Orchestral - 32 bar
Music Styles
Presentation Stings
22 Atmospheric 1
23 Techno 1
24 Atmospheric 2
25 Mid Tempo Dance 5
26 Rock 1
27 Rock 2
28 Slow Rock
29 Heavy Rock
30 Techno 2
31 Techno 3
25 Mid Tempo Dance 5
28 Slow Rock

Track 25
Title Mid Tempo Dance 5
Tempo 120
Length 1'04"

A multimedia presentation wouldn't be the same without a jaunty soundtrack – *Grooves* provides 90 copyright-free audio clips

While the Mac built its reputation in the 1980s on excellence in desktop design in all its forms, the 1990s will, arguably, become the decade in which it dominates the mixed media market.

Early products included **HyperCard**, with its built in easy to use interactive programming but no colour support, and **SuperCard** which brought colour but at the expense of memory overheads and speed.

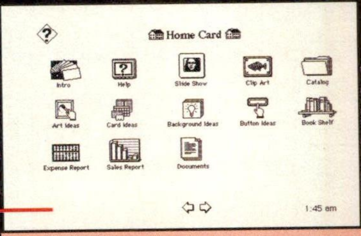
But just as the advent of 24-bit colour scanners and software such as **Photoshop** meant that the editing and manipulation of stills photographs could take place on the desktop, video and audio are the current targets.

With the Mac's System architecture now designed, via **QuickTime**, to take advantage of high-quality video and audio digitising hardware, and a wealth of editing applications developed to further exploit it, the machine is at the forefront of what many believe is the next desktop revolution – Multimedia – the dreaded M-word.

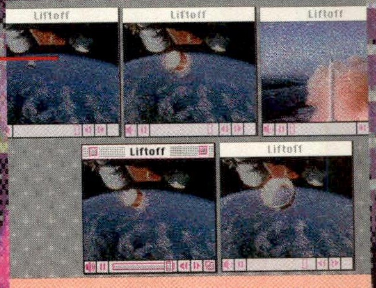
Whatever your doubts, there's no doubting the quality of Mac media software available. The aim is presentation and the target is an overhaul of the audio-visual industry. So more and more programs tended to opt for control over specific needs. Animation is taken care of by products like **Cinemation, FilmMaker** and **Animation Works** where all the hard work can be taken out of storyboarding, frame sequencing and in-betweening.

While most packages offer effects such as rolls, fades, dissolves and other transitions, it's the applications which incorporate multiple video and audio tracks which come closest to putting a media studio on your desktop. **Premiere** is perhaps now the most famous of the few, but **Macromind Director, MediaMaker and Media Tracks** all vie for prominence in an area demanding ever more sophisticated control over the clips and tracks going to make up a multimedia production.

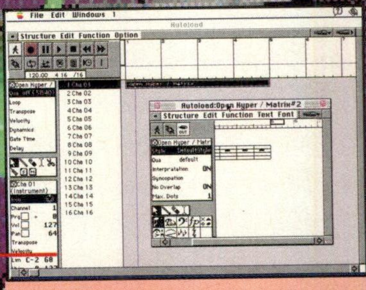
However, it's probably in the area of music that the Mac is fast becoming the definitive media machine with a wealth of products, like industry standards **Cubase** and **Notator**, being ported over from other formats. Here the applications enable complete control over every aspect of sequencing multi-tracks of MIDI data. And while many of these are aimed at the high-end there are more and more pitched at an affordable level like **Grooves** and **MusicTime**.


Home Card
Intro
Help
Slide Show
Clip Art
Catalog
Art Ideas
Card Ideas
Background Ideas
Button Ideas
Book Shelf
Expense Report
Sales Report
Documents
1:45 am

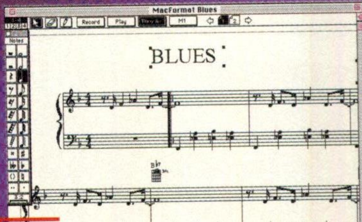
HyperCard was the first do-it-yourself interactive programming tool on any personal computer. It didn't support colour or video but, neverthess, its easy scripting facilities, push-button control and versatility still make it the first choice for many non-programmers


Liftoff
Liftoff
Liftoff
Liftoff
Liftoff

QuickTime comes free with all new Macs and for the first time on any computer provides built-in motion video handling. It also provides extremely good compression of PICT files automatically and is supported by an increasing number of new software releases – from word processors to kid's cartoons and 'Living Books'

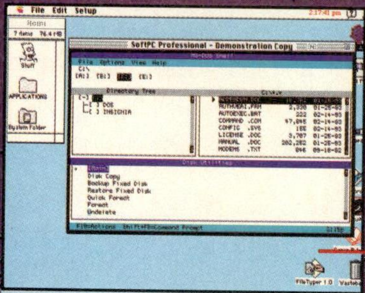

File
Edit
Windows
Autoload
Structure
Edit
Function
Option
Autoload:Open Hyper / Matrix#2
Structure
Edit
Function
Text
Font

Electronic musicians go crazy over *Notator Logic*, a sophisticated MIDI sequencer. It features on-screen staves, complete control of note information, and an astonishing selection of different MIDI displays

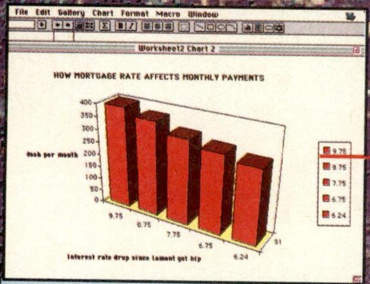

MacFormat Blues
Record
Play
BLUES

MusicTime brings automatic notation to your MIDI sequences and great print quality to your scores

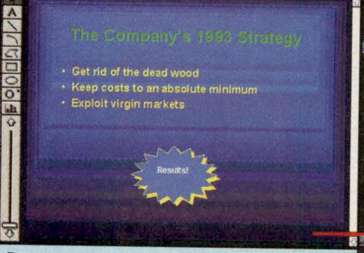
BUSINESS


File Edit Setup
SoftPC Professional - Demonstration Copy
File Options View Help
Directory Tree
APPLICATIONS
System Folder

Insignia Solution's *SoftPC* enables you to emulate an MS-DOS machine (if you *really* feel you have to) so you can run all the PC's business software too – there's even a Windows version.


File Edit Gallery Chart Format Macro Window
Worksheet2 Chart 2
HOW MORTGAGE RATE AFFECTS MONTHLY PAYMENTS
400
350
300
250
200
150
100
50
0
9.75
8.75
7.75
6.75
6.24
9.75
8.75
7.75
6.75
6.24
Interest rate drop since lament got hip

With database functions and numerous ways of displaying spreadsheet data, *Excel* provides sophisticated financial modelling and presentation-quality output


The Company's 1993 Strategy
Results!

- Get rid of the dead wood
- Keep costs to an absolute minimum
- Exploit virgin markets

Presentation software is a fast-growing area and applications like *PowerPoint* include all the features you need to easily create desktop slide-shows – ideal for training, marketing and sales pitches

The strength of the Mac in the US has ensured that every major software company supports it with business software – while a huge range of smaller companies deliver everything from excellent but inexpensive shareware to four-figure, network applications.

Whatever the need, there would appear to be a solution – even if you want to run PC applications – just run **SoftPC**. And if you're looking for a suite of applications that'll satisfy all your office needs then just turn to integrated packages like **Claris Works** and **Microsoft Works**

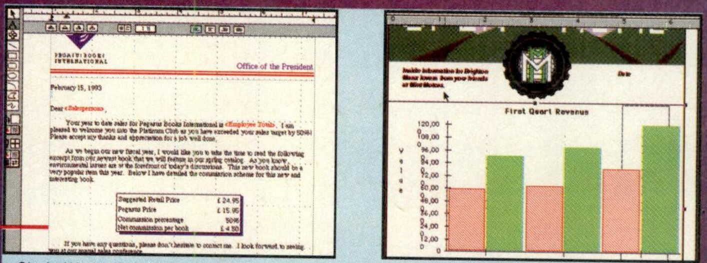
Alongside excellent word processors like **Word**, **WordPerfect** and **MacWrite,** there are a number of grammar, spelling and style checkers too such as **Thunder 7, Correct Grammar** and **Word Finder** plus more specific utilities like **Quote Finder** and **Inside Information –** a thought processor.

On the financial software side, again there is a wide variety of spreadsheets and accounting packages to suit most needs and pockets. **Excel, 1-2-3, Resolve** and **Wingz** all stand out as fully-featured spreadsheets with database and modelling functions while programs such as **Works** and **BiPlane** offer cost-effective options. In the more specialised area of accounting, products such as **Pegasus** and **Ritz** provide features at a price one probably needs an accountant to afford while **MacMoney** and **Claris Accounts** probably offer a better return on your money.

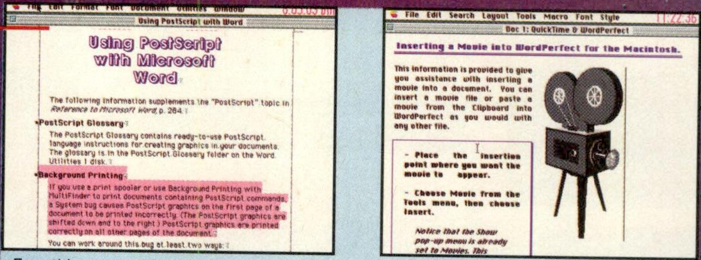
With databases it's pretty much the same picture with excellent entry-level products tending to concentrate on dedicated uses like **Address Book Plus, Quickdex, Dynodex** and **Contact!** and the more advanced applications like **4th Dimension, Double Helix, Omnis** and **FoxBase** offering the versatility of fully relational databases.

Since even digital desktops become extremely disorganised, reminders and appointment schedulers like **Meeting Maker, Smart Alarms** and **AgentDA** prove very popular. At the high end, equivalents like **MacProject, Microsoft Project** and **MacSchedule** offer solutions to company-wide scheduling and progress monitoring.

Business graphics applications like **Cricket Graph, DeltaGraph Pro** and **GraphMaster** provide 3D graphing and slide show output while, finally, presentation packages such as **Persuasion, PowerPoint** and **Inspiration** extend this further by offering Mac-based shows.


Office of the President
First Quart Revenue
120,00
100,00
96,00
84,00
72,00
60,00
48,00
36,00
24,00
12,00
0

Claris Works (left) is five programs in one – a word processor, spreadsheet, database, comms utility and graphics package. In most cases, you can freely exchange files between the different modules, making it simple to include spreadsheet data or graphic illustrations in your word processor documents. So, using *Microsoft Works* (right) you can seamlessly merge text from the word processor, graphics from the drawing program, reports from the database, and graphs from the spreadsheet and charting modules


File Edit Format Font Document Utilities Window
Using PostScript with Word
File Edit Search Layout Tools Macro Font Style
11:22:36
Doc 1: QuickTime & WordPerfect

Using PostScript with Microsoft Word

The following information supplements the "PostScript" topic in *Reference to Microsoft Word*, p. 284.

PostScript Glossary

The PostScript Glossary contains ready-to-use PostScript language instructions for creating graphics in your documents. The glossary is in the PostScript Glossary folder on the Word Utilities 1 disk.

Background Printing

If you use a print spooler or use Background Printing with MultiFinder to print documents containing PostScript commands, a System bug causes PostScript graphics on the first page of a document to be printed incorrectly. (The PostScript graphics are shifted down and to the right.) PostScript graphics are printed correctly on all other pages of the document.

You can work around this bug at least two ways:

Inserting a Movie into WordPerfect for the Macintosh.

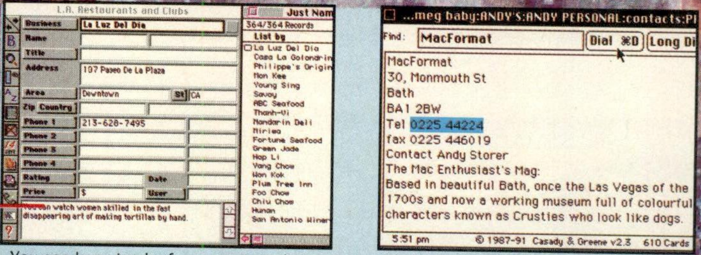
This information is provided to give you assistance with inserting a movie into a document. You can insert a movie file or paste a movie from the Clipboard into WordPerfect as you would with any other file.

- Place the insertion point where you want the movie to appear.

- Choose Movie from the Tools menu, then choose Insert.

Notice that the Show pop-up menu is already set to Movies. This

Everything you could ask for in a word processor – *Microsoft Word* (left) *has* features for sorting, spell checking, word counting and mail merging, plus indexes, tables of contents, hyphenation, headers, footers, and graphics. *WordPerfect* (right) is another word processor that does a lot more than just process words – you can use it to produce anything from a brief memo to a complicated mailshot. The graphics facilities are great for adding diagrams and illustrations to essays or reports and you can even include *QuickTime* clips!


L.A. Restaurants and Clubs
Just Nam
364/364 Records
List by
La Luz Del Dia
Casa La Golondrin
Philippe's Origin
Mon Kee
Young Sing
Savoy
ABC Seafood
Thanh-Vi
Mandarin Deli
Mirieo
Fortune Seafood
Green Jade
Hop Li
Vong Chow
Won Kok
Plum Tree Inn
Foo Chow
Chiu Chow
Hunan
San Antonio Winer
...meg baby:ANDY'S:ANDY PERSONAL:contacts:PI
Dial ⌘D
Long Di
5:51 pm
© 1987-91 Casady & Greene v2.3
610 Cards

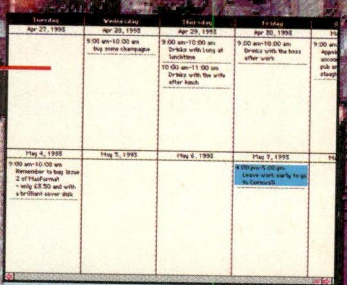
Business: La Luz Del Dia
Name:
Title:
Address: 107 Paseo De La Plaza
Area: Downtown
St: CA
Zip Country:
Phone 1: 213-628-7495
Phone 2:
Phone 3:
Phone 4:
Rating:
Date:
Price: $
User:

…can watch women skilled in the fast disappearing art of making tortillas by hand.

Find: MacFormat

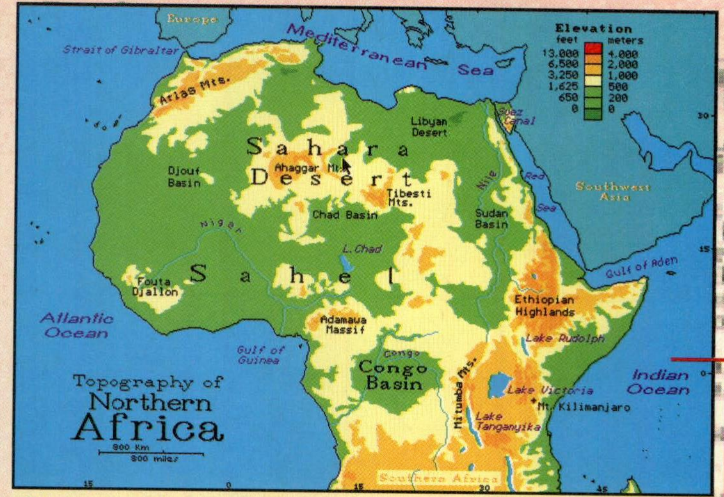
MacFormat
30, Monmouth St
Bath
BA1 2BW
Tel 0225 44224
fax 0225 446019
Contact Andy Storer
The Mac Enthusiast's Mag:
Based in beautiful Bath, once the Las Vegas of the 1700s and now a working museum full of colourful characters known as Crusties who look like dogs.

You can keep track of your contacts in a pop-up address book desk accessory – *Dynodex* (left) and *QuickDex* are two excellent examples of the genre. Both will store addresses, telephone numbers and other useful information, all ready to be accessed at the click of the mouse button – you can even get them to make the call for you


Apr 27, 1995
Apr 28, 1995
Apr 29, 1995
Apr 30, 1995
May 4, 1995
May 5, 1995
May 6, 1995
May 7, 1995

Reminders and alarms such as *AgentDA* prove extremely useful for the busy biz user. All your appointments can be stored and will automatically trigger on screen on the appropriate date and time

REFERENCE


Topography of Northern Africa
Elevation
feet meters
13,000 4,000
6,500 2,000
3,250 1,000
1,625 500
650 200
0 0
Europe
Strait of Gibraltar
Mediterranean Sea
Atlas Mts.
Libyan Desert
Suez Canal
Sahara Desert
Ahaggar Mts.
Tibesti Mts.
Djouf Basin
Chad Basin
Sudan Basin
Nile
Red Sea
Southwest Asia
Niger
L. Chad
Gulf of Aden
Sahel
Fouta Djallon
Ethiopian Highlands
Atlantic Ocean
Adamaua Massif
Lake Rudolph
Gulf of Guinea
Congo Basin
Mitumba Mts.
Lake Victoria
Mt. Kilimanjaro
Indian Ocean
Lake Tanganyika
Southern Africa
800 Km
800 miles

Claiming to be a “fact book, almanac and atlas all-in-one”, *World Atlas* features not just maps (political, topographical and statistical), but also a host of information files on each country’s population, education, health, government, crime, economy and agriculture

It’s only since the arrival of CD-ROM that the Mac has been treated to a deluge of what is referred to as ‘content-based’ software. Featuring everything from dictionaries to collections of clip photos, CD-ROM disks, with their huge storage capability and inexpensive mastering and distribution, are providing encyclopaedic masses of easily accessible information.

The mainstream sellers are US reference titles like **World Atlas, Time Table of History** and the hugely popular **Grolier’s Encyclopedia**, which fit neatly onto CD despite their huge size in print form.

Developers are seizing on the chance to deliver interactive mixed media titles which simply couldn’t exist as a traditional reference work. Like the innovative **Ecodisc** – with footage and sounds from a nature reserve or **Dictionary of the Living World** with its unparalleled use of video clips.

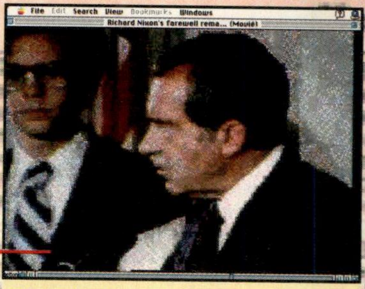
But books still tend to be the dominant medium – **Shakespeare’s Complete Works, Sherlock Holmes Complete Works,** and **The Guiness Disk of Records** all illustrate the added value of including fast search routines and extensive cross-referencing at the touch of a button.

The Mac’s also strong in the cultural field too with titles like **Beethoven’s Ninth, Mozart’s Magic Flute** and **Schubert’s Trout Quintet** combining with art catalogue works like **Impressionism** and **The Louvre** to offer interactive study.

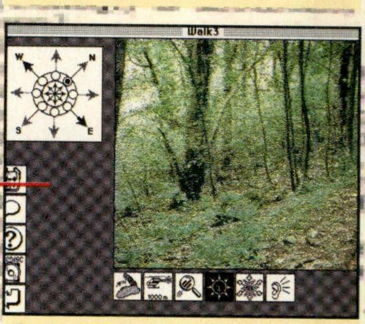
Perhaps this takes its most useful form in the field of language education where the **HyperGlot** series enable the user to perfect pronunciation of the language of their choice.

But reference is not all about high-brow study it’s also about sitting back and browsing through titles like **Gulf War CD, Desert Storm,** the fact-packed **Countries Of The World** and the satellite shots of **World View.** These are feature video movies of places you're never likely to visit and events you never would have wanted to experience from the Gulf War and outer space.

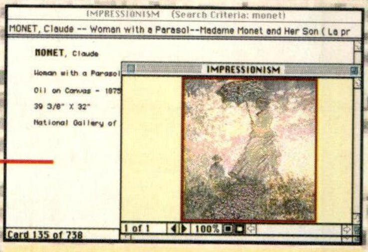
CDs like **BMUG** and **Club Mac** contain hundreds of Megs of public domain software and shareware while disks such as **Image Warehouse** offer Mac owners collections of copyright-free music and photos. So, at the end of the day, it’s titles like these latter ones which will make a CD-ROM drive pay for itself over and over again


File Edit Search View Bookmarks Windows
Richard Nixon's farewell rema... (Movie)

The *Grolier Multimedia Encyclopedia* contains all 21 volumes of the Academic American Encyclopedia on a single CD-ROM, with over 33,000 articles, many illustrated with pictures, video or animations



Ecodisc is a remarkable feat of miniaturisation – a complete nature reserve on a CD-ROM. You can walk around the reserve, listen to experts talking about the plants and animals that live there, and carry out a number of experiments



IMPRESSIONISM (Search Criteria: monet)

MONET, Claude -- Woman with a Parasol--Madame Monet and Her Son (La pr

MONET, Claude

Woman with a Parasol

Oil on Canvas - 1875

39 3/8" X 32"

National Gallery of

IMPRESSIONISM
1 of 1
100%
Card 135 of 738

Coates' *Impressionism* is a multimedia database of the impressionists and their work – including famous names like Van Gogh and Monet. If you’re interested in 'the realistic representation of the play of light in nature', then this is for you

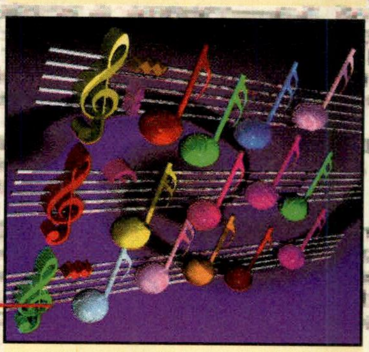
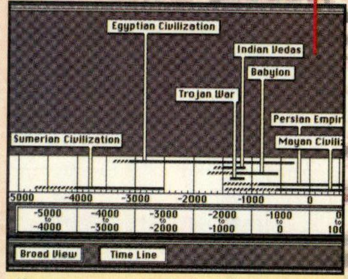


Image Warewhouse's dozens of copyright-free images range from abstract backgrounds and textures to glossy photos of exotic locations. Great for DTP work


Egyptian Civilization
Indian Vedas
Babylon
Trojan War
Persian Empir
Sumerian Civilization
Mayan Civili
5000
-4000
-3000
-2000
-1000
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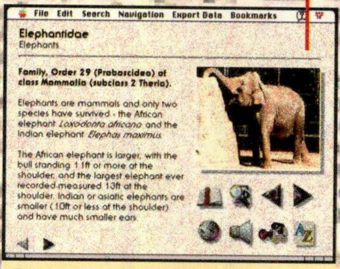
-5000
-4000
-3000
-2000
-1000
0
-4000
-3000
-2000
-1000
0
100
Broad View
Time Line

If you can never remember who came first, the Greeks or the Romans, then the *Time Table of History*, from Software Toolworks, will put you straight. It places multimedia descriptions of major events in a historical context, from the age of the dinosaurs right up to the Space Shuttle


File Edit Search Navigation Export Data Bookmarks

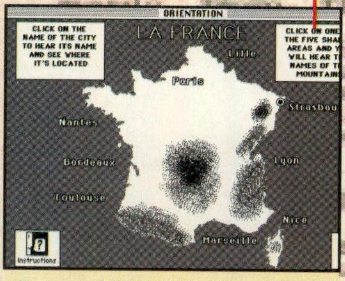
Elephantidae
Elephants

Family, Order 29 (Proboscidea) at class Mammalia (subclass 2 Theria).

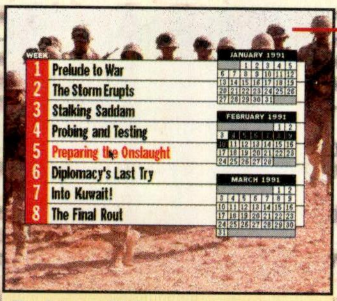
Elephants are mammals and only two species have survived - the African elephant *Loxodonta africana* and the Indian elephant *Elephas maximus*.

The African elephant is larger, with the bull standing 11ft or more at the shoulder, and the largest elephant ever recorded measured 13ft at the shoulder. Indian or asiatic elephants are smaller (10ft or less at the shoulder) and have much smaller ears.

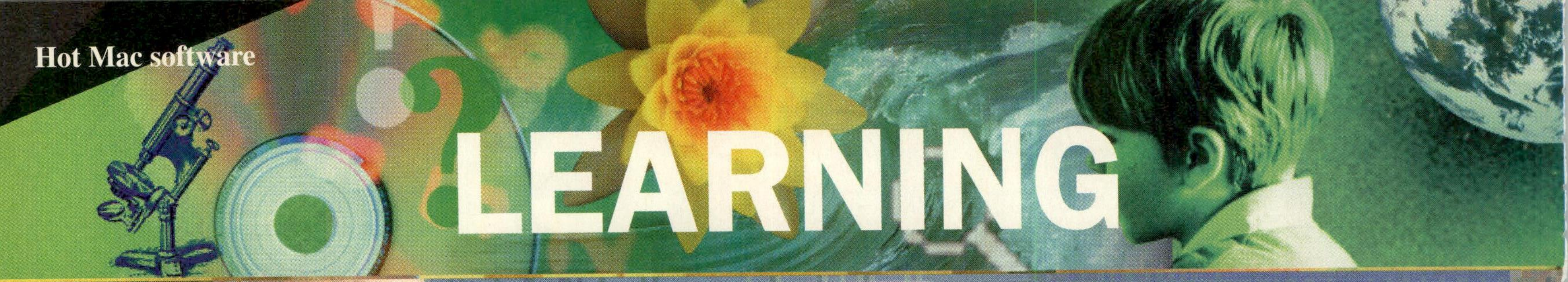
Dictionary of the Living World features 450 colour images, 75 animated movies, 50 full motion video clips and 2,500 data files containing information on more than 5,000 species of animals


ORIENTATION
CLICK ON THE NAME OF THE CITY TO HEAR ITS NAME AND SEE WHERE IT'S LOCATED
LA FRANCE
CLICK ON ONE THE FIVE SHA AREAS AND Y WILL HEAR T NAMES OF T MOUNTAIN
Lille
Paris
Strasbou
Nantes
Bordeaux
Lyon
Toulouse
Nice
Marseille
Instructions

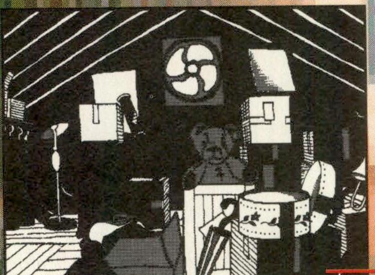
‘Bonjour!’ ‘Guten Tag!’ And ‘konnichi-wa!’ HyperGlot’s *Lingaroms* are the multimedia way to learn a foreign language, consisting of lessons which incorporate illustrations, realistic test situations and digitised spoken examples


WEEK
1 Prelude to War
2 The Storm Erupts
3 Stalking Saddam
4 Probing and Testing
5 Preparing the Onslaught
6 Diplomacy's Last Try
7 Into Kuwait!
8 The Final Rout
JANUARY 1991
FEBRUARY 1991
MARCH 1991

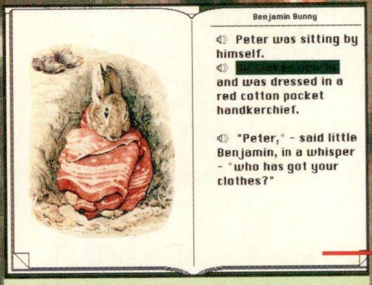
The folks at *TIME* have put together a complete multimedia account of the 1991 Gulf War. Colour photographs, audio narration and news stories are all provided to give a complete picture of this piece of modern history



LEARNING



It's silly, it's noisy – and it takes place in a house. Each of the hundreds of items in the aptly-named *Silly Noisy House* has its own special sound and action – as you'll soon find when you start moving around the rooms of this audio-visual playground



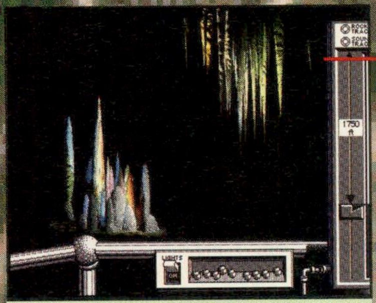
Benjamin Bunny

Peter was sitting by himself.

[illegible] and was dressed in a red cotton pocket handkerchief.

"Peter," - said little Benjamin, in a whisper - "who has got your clothes?"

Benjamin Bunny, one of Beatrix Potter's famous little characters, is captured on screen in *The Tale of Benjamin Bunny*. With a simple click of the mouse you can turn, skip, re-read pages and have the story read to you



This one's great for the curious child. *Spelunx* consists of a whole labyrinth of caves and corridors, filled with different games and experiments for the child to try. Subjects covered include the solar system, geometry, maths and music

In the States, the Mac has been a home computer ever since its introduction and a fair few of Apple's 'early adopters' are now parents themselves.

Over here the Mac is only just beginning to be marketed as a family machine but in the States developers have seized on the opportunity to produce software for kids.

The thinking behind this initiative is this: if the Mac's so easy to use that even a child can master it, then why not release entertainment and learning titles specifically for them?

You really need a CD-ROM drive though to take advantage of this range of software since all of the 'learning' titles are very code-intensive and feature varying forms of mixed media.

The dozens of childrens' titles available take painting, drawing and reading as the base ingredients and, as in the brilliant **A Silly Noisy House**, add voices, music, cartoons, photos and video to the proceedings.

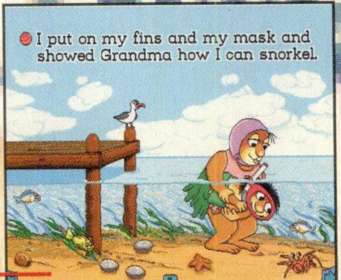
'Living Books' is the name of the new genre, best typified by **Just Grandma and Me** and **Arthur's Teacher Trouble**, which combine all these various media to produce interactive fun with a capital F.

Using the Mac's point-and-click graphics capabilities, titles like the **Kid Pix** series teach on-screen painting and drawing, while **The Tale of Benjamin Bunny, Amanda Stories, Annabel's Dream** and **It's A Bird's Life** offer interactive reading books.

Other basic skill building is catered for by titles like the spelling teachers **Reading Maze, Daisy Quest** and **Spelunx and the Caves of Mr. Seudo.** Elementary maths and music skills are covered by CDs such as **NumberMaze, KidsMath, KidsTime** and **Carnival of the Animals**. The **Story-Mation** CD even enables children to create their own animated storybooks with a mixture of text, graphics and sound.

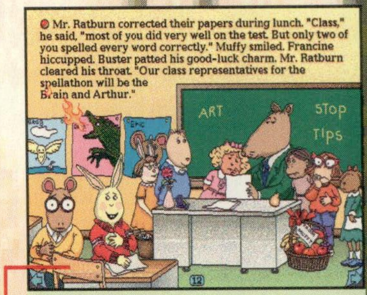
Aimed towards the older child and the wider family are the more reference-style titles such as **Creepy Crawlies, Dictionary Of the Living World** and **African Wildlife,** heading up a mass of natural history releases including **Dinosaurs** featuring QuickTime movies which allow you to 'walk around' and observe various creatures.

So if you have a CD-ROM drive and a family you might well be tempted by the educational software on offer. Leaving your kids alone with your Mac is, of course, another question entirely.



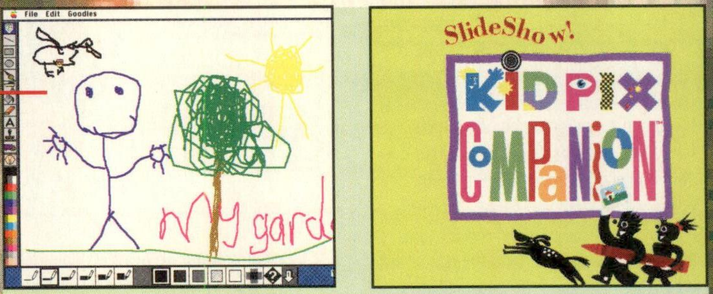
I put on my fins and my mask and showed Grandma how I can snorkel.

Just Grandma and Me, a 'Living Book' from Brøderbund, tells the story of Little Critter's trip to the beach, in words, pictures and animations. Virtually every object on the screen magically comes to life when you click on it

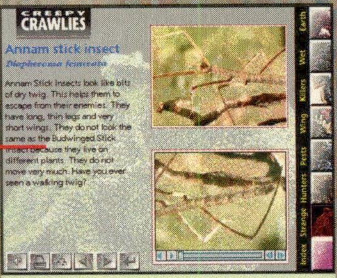


Mr. Ratburn corrected their papers during lunch. "Class," he said, "most of you did very well on the test. But only two of you spelled every word correctly." Muffy smiled. Francine hiccupped. Buster patted his good-luck charm. Mr. Ratburn cleared his throat. "Our class representatives for the spellathon will be the Brain and Arthur."

Arthur's Teacher Trouble is another Brøderbund 'Living Book', this time set in a school. The words of the text are highlighted as they are spoken, improving the child's reading skills as he or she explores the fascinating and lively world shown on each page



Youngsters don't always take too well to the discipline of structured drawing programs, so here's a painting program designed just for them. As well as simple drawing, *Kid Pix* offers several special effects, simple clip art, and 'wacky brushes', each with its own accompanying sound. *KidPix Companion* enhances *KidPix* with Apple's *QuickTime*, so you can play little movies with your pictures or make slide shows

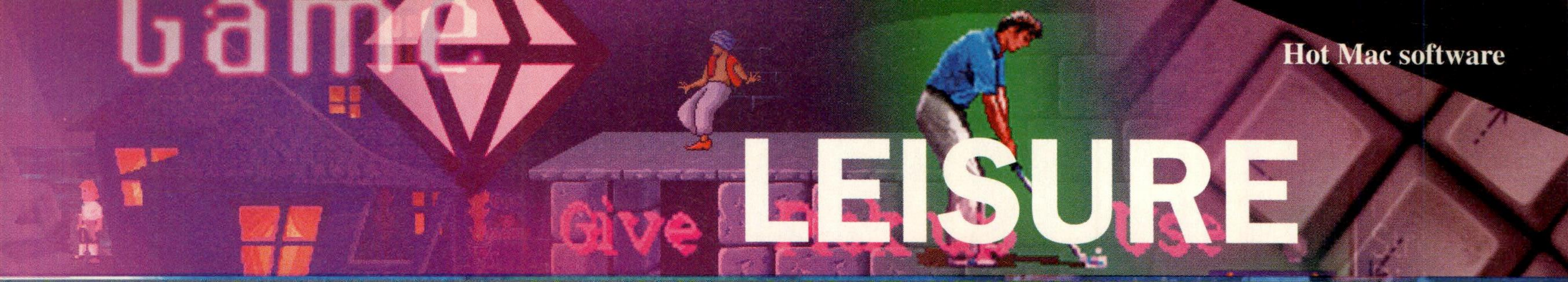


CREEPY CRAWLIES

Annam stick insect

Annam Stick Insects look like bits of dry twig. This helps them to escape from their enemies. They have long, thin legs and very short wings. They do not look the same as the Budwinged Stick Insect because they live on different plants. They do not move very much. Have you ever seen a walking twig?

It's not a bug – it's a feature. *Creepy Crawlies* has all the facts on more than 70 horrible little creatures. Whether you want to know about pests or parasites, they're all here, complete with biological information and great clips of full colour, full-motion video



LEISURE

Since the Mac now has over 200 games titles available for it and plenty more on the way, it's about time a Mac magazine began to take fun seriously.

Well here we are! – and, yes, some of us can still remember the old mono days of **Daleks, Crystal Quest** and **Tetris**. But hey! now there are colour Macs it's a whole new ball game right? It's been kind of slow but after the first releases – understandably flight sims and graphic adventures because they didn't require really fast screen updates – we now have quite a respectable catalogue of Mac games to hand.

From the complete addiction of **Lemmings** and **The Secret Of Monkey Island**, to the wordplay of **WordTris**, the puzzles of **Prince of Persia**, the brilliant animation of **Battle Chess**, the superb strategy of **SimEarth** and the pleasure of playing **PGA Tour Golf**, the Mac's got some high quality outings. But what about some real arcade action?

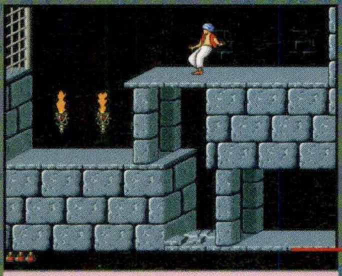
This has been one of the machine's weaknesses; the reason being the fact there's so much memory overhead taken up by its friendly face. On other machines, fast arcade action has been coded direct to the hardware – bypassing the operating system altogether. Not so with the Mac. What remains are *fairly* fast action games that spin on a Quadra but dawdle on an LC. So the playability of a game like **Hellcats** depends on the machine it's running on – it's the same with **Spectre** and **Pararena** too.

Nevertheless they still manage to keep you wrapped up for hours in their different ways – and that's not while you're waiting while the frame rate updates!

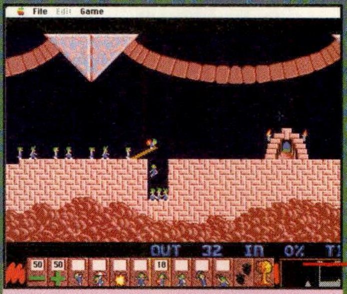
The Mac still needs one 'killer' game which will sell machines all by itself and that may come in the form of CD releases like **Sherlock Holmes** and **The JourneyMan Project** (reviewed this issue), but the need for speed has never been greater.

Perhaps all this talk of games is misplaced, though. Perhaps the prize for best Mac game of all should go to the **Finder**, and the best fun the continual attempts to customise its appearance and functionality to the nth degree. Either that or the army of way-out widgets, INITs and screen savers like **Start Trek, After Dark** and **Intermission.**

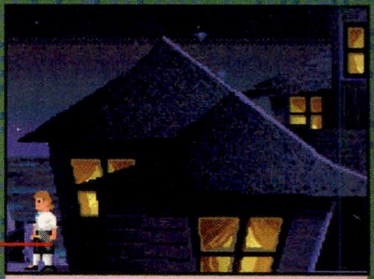
Nevertheless, the future's never looked brighter for Mac leisure software and given volume machine sales in the high street we should see more and more UK software houses developing for it.



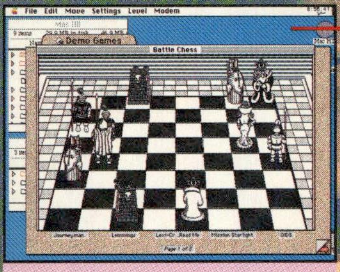
The Sultan's daughter has been kidnapped and you have to rescue her. That's the pre-feminist premise behind the excellent graphical adventure *Prince of Persia* – you'll need quick reflexes and a keen puzzle-solving mind to reach the end of this game



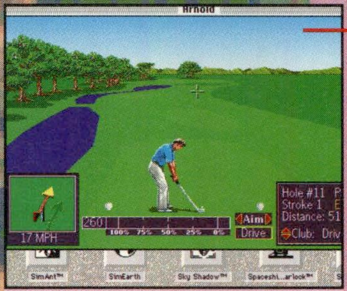
As everyone knows, lemmings (the mammals) just want to jump off cliffs – so in *Lemmings* (the computer game) you have to stop them. You do this by telling them to build bridges, dig tunnels and (occasionally) explode in this deservedly-popular puzzle game from Psygnosis



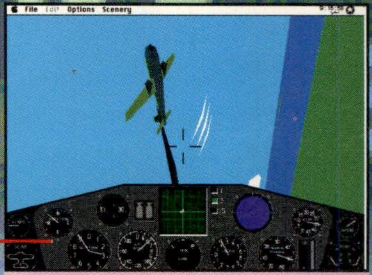
Often hailed as 'one of the best computer games ever written', *The Secret of Monkey Island* is a beautifully-designed graphics-and-text adventure set in a world of pirate seafaring – with the added bonus of some genuinely funny jokes thrown in



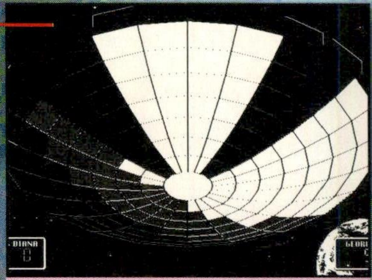
You might have thought that one game of chess would be very much the same as another – until you've seen *Battle Chess*, that is. Every piece and every move are animated, and the computer plays a pretty mean game into the bargain



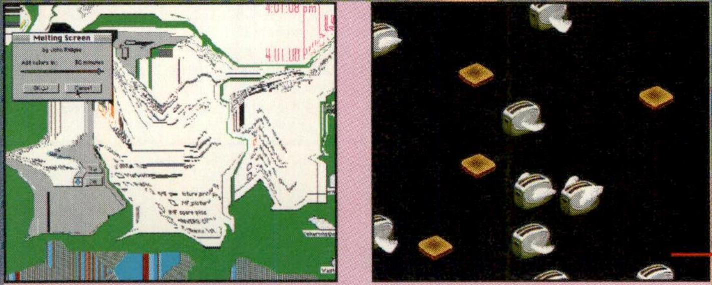
Imagine a good round of golf – without lost balls, the rain, or long walks between holes. You've just imagined *PGA Golf*, the excellent golfing simulation game for the Macintosh, where you can play against ten top players on seven of the world's most scenic courses



Bandits at 12 o'clock! In the World War Two flight simulator *Hellcats Over the Pacific*, you'll experience taking off from an aircraft carrier, dive bombing critical military targets, going up against ruthless enemy fighters, and probably bailing out or crash-landing at the end of the game



In the future, basketball will be played by armoured opponents swooping around an enormous parabolic dish. On skateboards. In *Pararena* you can experience this bizarre but compelling sport either against the computer or another human player over a network



From the sublime to the ridiculous – screen saver programs like *Intermission* (left) and *After Dark* don't just blank your screen while your Mac isn't being used, they go to enormous efforts to provide an interesting alternative. Both these packages offer a vast selection of configurable animated displays that'll keep you amused for hours

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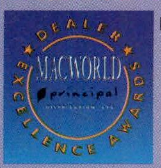

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ARCADE

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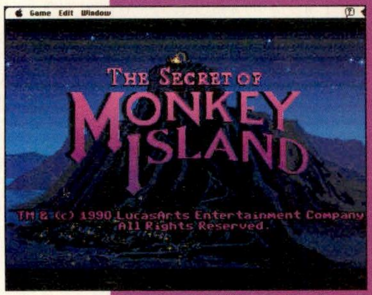
AMUSEMENT

...The Mac's just a DTP machine? Forget it ya relic! This is where the fun starts! Demon gamesbuster Bob Wade cruises through the coolest games in town...

The Secret of Monkey Island



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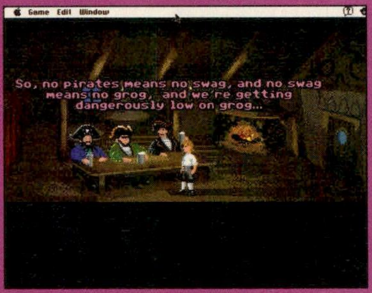
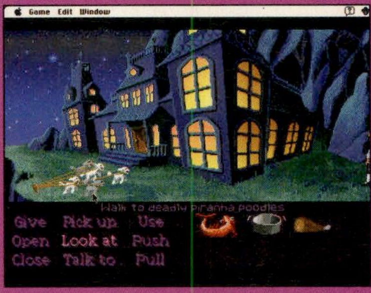
Start here, and a few dozen hours later you'll have laughed yourself silly and maybe got to the finish

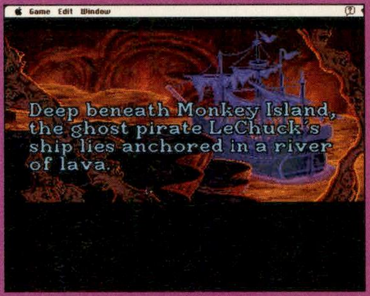


So, no pirates means no swag, and no swag means no grog, and we're getting dangerously low on grog...

This scurvy trio of pirates get you started on your quest to be a mighty pirate and to discover the secret.

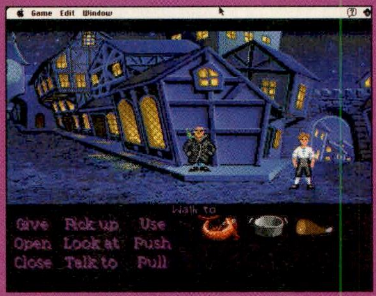


The Governor's mansion is guarded by deadly piranha poodles, but inside is the world's greatest stunt scene



Deep beneath Monkey Island, the ghost pirate LeChuck's ship lies anchored in a river of lava.

You're about to meet the ghost pirate LeChuck, the game's main bad guy and a nasty piece of work



The people in town can be helpful – this guy is useful for directions, and has a parrot. Lucky him

The Secret of Monkey Island

£36, LucasArts/US Gold

Requires: II series, LC or Quadra, colour, hard disk, 2Mb RAM, System 6.0.7 or 7.
Controls: Mouse

When *The Secret of Monkey Island* first appeared on the PC and Amiga it caused quite a stir and got rave reviews from games players who normally wouldn't be seen dead playing a graphic adventure. So what is it that got everyone so worked up about it?

As a clue, the back of the box carries the selling points 'eye-gouging 3D graphics', 'ear-piercing reggae music', 'relentless jabs, and cryptic in-jokes only smart people will understand'.

If you don't get it from the box you'll soon catch the drift from your first encounter with another character – a short-sighted man on a clifftop. This game is funny.

It actually comes as quite a surprise when you find yourself giggling openly at a computer game, but if this one doesn't do it for you then I don't know what will.

However, back to the point, which is not so much that *Monkey Island* is funny, but that it's a graphic adventure which involves no typing whatsoever, lots of gorgeous graphics and an awful lot of adventuring. You control the main character – Guybrush Threepwood – who has come to Mêlée Island to become a mighty pirate, for reasons which I'm sure he finds obvious. To start with you have to complete three trials to prove yourself worthy of being a pirate, and from there on things just get weirder.

All the locations in the game – and there are a lot of them – are beautifully drawn. You can wander quite freely around them just by clicking the mouse pointer somewhere and Guybrush will walk there. Putting the cursor over objects will tell you what they are, sometimes with extremely chucklesome consequences – just try messing with the rat, for example.

You also have a selection of nine verbs to use, such as Look At, Talk To and Open, which are selected with the mouse and applied to an object just by clicking on it.

This extremely friendly interface system carries over into conversations with the other characters. You just have to choose from a list of responses that appear on screen and Guybrush will say the one you choose. Most of the characters you meet are weird, mad, mean, hilarious or all four at once, and they are great fun to talk to.

One of the great things about the game is that however bizarre and pointless some of the objects, events and characters may seem to be, they are all essential parts of the story. Another huge plus point in the game's favour is that you can't die by making mistakes. You can experiment as much as possible and won't be punished by an early grave, as in many adventures that expect you to be psychic when it comes to guessing puzzle solutions.

The creators of *Monkey Island* reckon the average time taken to complete the game is 30 hours, and that seems about right. It's a huge game, and just when you think you've got everything worked out it throws a load more surprises at you.

Some puzzles do require a bit of lateral thinking and you might find yourself frustratingly stuck for a while, but for the most part the action flows smoothly and you'll feel rewarded for just about everything you do.

Conclusion

The Secret of Monkey Island is without doubt one of the all-time great computer games. It has managed to combine delightful graphics and animation, a wicked sense of humour and a long-lasting, challenging adventure. That all adds up to an exceptional entertainment package that should amuse and engross everyone who plays it. This game is the standard which all other adventures have to be measured against.

MacFormat Rating **92%**

ARCADE

Macs everywhere have at least a couple of games hidden away on them. The variety of titles available is extraordinarily wide, and you'll find games players addicted to everything from simple card games to graphic extravaganzas on CD-ROM.

Every month MacFormat will be bringing you reviews of Macintosh games of all types and prices. We'll be looking at all the new releases and also covering some of the classic older titles that you might not be aware of.

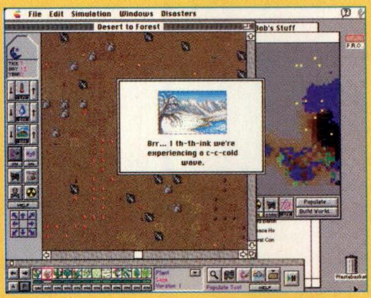
This month's selection of scintillating software ranges from World War One dogfighting action in *Red Baron*, through witty pirate adventure in *The Secret of Monkey Island* to the serious business of creating life in *SimLife*

Sim Life

SimLife

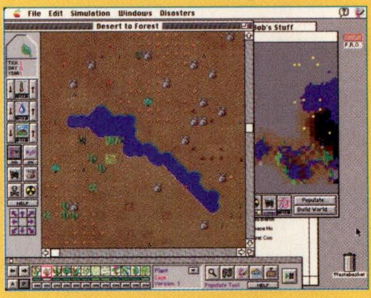
£40, Maxis/Mindscape

Requires: Any Mac. In black and white needs 2Mb RAM in System 6 and 2.5Mb RAM in System 7, in colour needs 2.5Mb RAM in System 6 and 3Mb RAM in System 7. Hard disk required.
Controls: Mouse or keyboard.

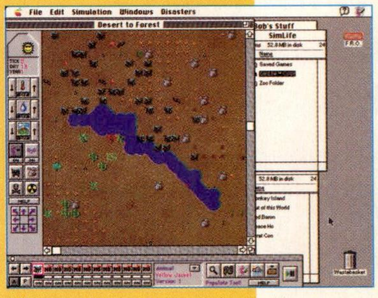


Brr... I th-th-ink we're experiencing a c-c-cold wave.

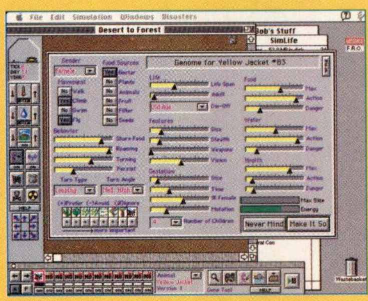
Experimental worlds can get hit by all sorts of disasters. Here it's a cold wave, but it could even be a comet!



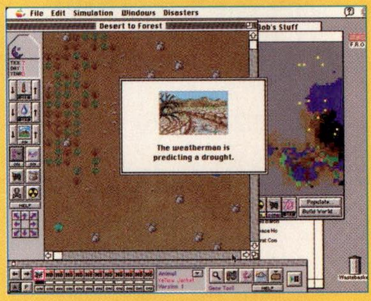
Here you are trying to turn a desert landscape into a forest, so the first step is to get the plants to survive



Now we throw in our one and only insect and see whether it can live on the plants we've got

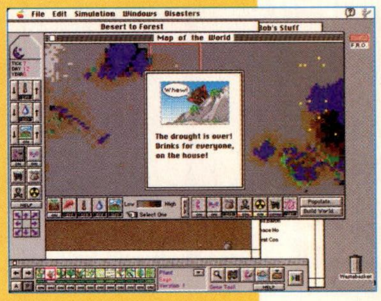

File Edit Simulation Windows Disasters
Desert to Forest
Bob's Stuff
SimLife
Genome for Yellow Jacket #83
Never Mind
Make It So

It looks complex and so it should, because it gives you total control over the behaviour of your insect



The weatherman is predicting a drought.

As if the conditions weren't bad enough already, you're about to get hit by a life-threatening drought



The drought is over! Drinks for everyone, on the house!

Nothing po-faced about this program – it may be complicated, but it always tries to keep things entertaining

The Sim series of games elicits one of two responses from people. The first group take one look at the documentation and complicated screen layouts and decide they would rather go and clean out the attic instead. The second take that same brief look and spend the next couple of years utterly immersed in the game and happy as sandboys.

You either love them or hate them and *SimLife* doesn't look like changing that because it's Maxis' most ambitious and detailed project to date – if you're simulating the creation of life, it would have to be.

Lab of the gods

Describing *SimLife* is a difficult task in itself, so I'll let the manual do it: '...an Artificial Life Laboratory/ Playground designed to simulate environments, biology, evolution, ecosystems and life.' And that's just what it is. By the time you've gone through the tutorial, played a few scenarios, discovered lots of interesting possibilities and read the manual (don't worry – everyone does this last) you will be an expert on life and how to mess with it.

Put simply, the idea is this – you first create a 'world' consisting of certain environmental factors and conditions like mountains, lakes, temperature and moisture.

Next you introduce a selection of plant and animal life to give your world some interest. Then you tinker with your lifeforms and ecology in an attempt to establish a balanced, sustainable ecosystem. To give you an idea of the level of the tinkering though, just look at some of the control panels printed here and you'll get some idea of the level of control and information you're given.

All this might sound like a real chore, and if you're not interested in playing god (or Charles Darwin) then maybe it is, but if you want to do something creative and educational with your time then this could be a great way to spend it. There's certainly nothing po-faced about the program or documentation, they've clearly been produced by people who enjoy what they're doing and who would like you to do the same.

There are many touches of wit and humour, and at every step along the way you are encouraged to experiment with the software and do your own thing. You can even visit disasters on your world like comets and sexually transmitted diseases.

There is a set of scenarios in which you have an aim, like turning a desert world into one full of life, and an evaluation report that scores your progress. On this level you can play *SimLife* as a game, albeit an extremely complicated one. Despite this concession to the gameplaying side of things, it doesn't seem likely that there will be many people playing *SimLife* to get high scores.

If you exhaust the pre-programmed scenarios you can enter the experimental mode where absolutely anything goes – you can set up situations from scratch and see what happens The possibilities are as near endless as makes no difference.

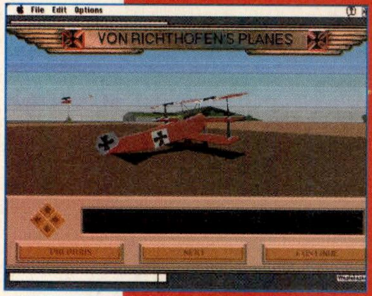
The educational aspects of this program are obvious; the only problem will be getting kids to read the manual. The detail and understanding that it gives on all aspects of the creation and maintenance of life is impressive.

Conclusion

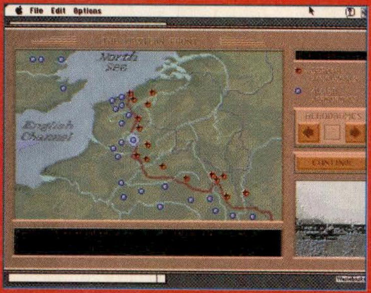
It's difficult to criticise *SimLife* because it clearly achieves what it sets out to do. It's not a game; if it were it would be a bad one. It is an entertaining piece of software and has years of enjoyment in it if you're interested in the subject matter – and if you are, it's worth every penny of the price tag.

MacFormat Rating 85%

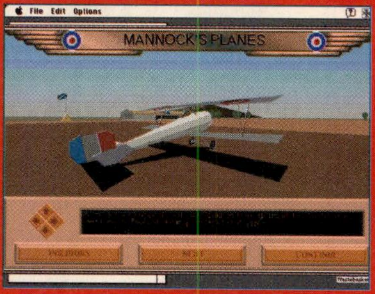
Red Baron



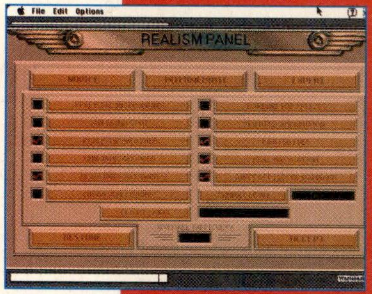
You can fly Von Richthofen's famous scarlet triplane, or battle against the man himself in the air



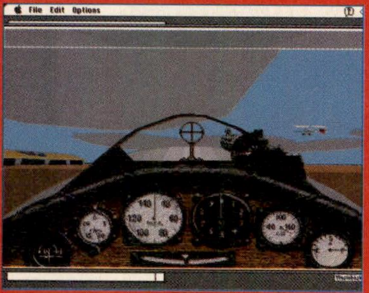
There's the whole Western front to patrol, and you'll see a lot of it if you choose the career option



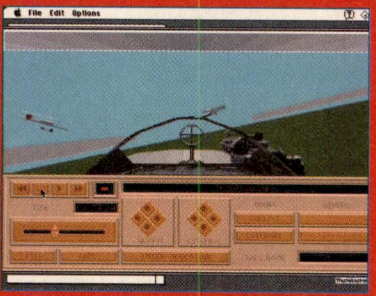
You can take a look at all the planes you can fly – if you look closely you can almost see the sticky tape



The realism panel gives you complete control over the difficulty level – you can even avoid aircraft damage!



Time to get stuck in as you and your wing leader take off from your home airfield and head for enemy lines



The mission recorder enables you to watch again as you and the wing leader close on a German plane

Red Baron

£40, Dynamix/Sierra

Requires: Colour Mac, 2Mb RAM with System 6, 3.5Mb RAM with System 7, 3.5Mb hard disk space.
Controls: Mouse, Keyboard or Gravis Mousestick.

These days it's very difficult to make anything fresh about a flight simulator because just about everything has been done – so a game has to have something special to keep you occupied.

Red Baron sets about doing this by transporting you back nearly 80 years to the First World War and immersing you in the atmosphere and challenges of dogfighting against famous aces like Manfred von Richthofen – the Red Baron.

You'll know you've encountered an extremely detailed and well researched game from the instant you open the packaging and discover the hefty manual inside. Most of this is taken up by fascinating background information that you can read any time at your leisure.

The section on gameplay is reasonably concise, and you can be in the air just a couple of minutes after installation. The manual and set-up screens help to set the atmosphere, and by the time you're in the air all you need is the buzz of the engine and chatter of the machine gun to make you reach for your flying goggles and wish the cockpit wasn't so draughty.

How to play

There are three main options you can go for: dogfight a famous ace, fly a single mission or start a career. Try out the first two and they'll give you a feel of the action – even though you will end up embedded in the mud of the Somme the first few times. After a bit of practice, though, the lasting interest in this game is the career option.

Flying your plane is an easy business in the 'by the seat of your pants' era. All you've got is a throttle, a rudder and an aversion for smacking into the ground.

The instrumentation is pretty basic too, but you do get an altimeter, compass, fuel gauge, air speed, rev counter, oil pressure gauge and inclinometer. You can also get some navigational aid with a sector readout – but that's tantamount to cheating so leave it turned off, eh?

Technology has had its effect, though, because you can view the action from all sorts of helpful but unrealistic positions. You can see all the way around your plane, including straight up and straight down, and then you can go outside and look back at your plane from all the same angles. It's great for seeing what's going on in the skies around you and down on the ground, but the outside views aren't what any real Sopwith Pup pilot had at his disposal!

The planes themselves come in many different shapes and sizes, and because you can fly on either the German or Allied side you can play around in everything from a dodgy-looking FE 2b biplane to a much sleeker-lined Fokker EIII.

One of the beauties of the game is that all you have to worry about weapon-wise is a machine gun. None of this firing a missile before you can even see your foe – in this game you've got to be close enough to flick them a V sign before pumping lead into their wooden death trap.

Of course there can be long periods of flying around in between fights (if you're doing missions fully), but the 'time compression' option reduces the boredom factor.

Realism is obviously important in this game and you get to decide an awful lot of how accurate things are. The realism panel lets you decide whether any or all of these are in effect: realistic instruments for the plane you're flying, a sun blind spot, realistic weather, gun jams, blackouts at altitude, carburettor freezes at altitude, limited ammunition, limited fuel, real navigation and damage to your aircraft. All of these factors combine to form an overall difficulty setting.

If you get lonely up there you'll be relieved to know that on many missions you will have company from other planes in your squadron. You're not always flight leader, but when you are, the other pilots will follow your orders – and when someone else is boss you'd be well advised to stick together and follow their orders.

The missions vary quite a lot, from dogfights and patrols to bomber escorts and Zeppelin hunting. One thing is for sure – whatever mission you're on, if you're looking for trouble it will find you.

When the missions are put together to form the career game, you will find yourself becoming really attached to your pilots and your opponents. Some opponents' planes are recognisably marked as aces, and they can appear in the sky at any time or you can deliver challenges to them. It won't be long before you're boasting about every kill to your game-playing friends and drowning your sorrows after the loss of an experienced pilot.

Conclusion

Red Baron is stuffed full of realism and atmosphere.

The gameplay is hectic when you get in the thick of a fight, capturing the panic as you try to shake off a skilled opponent and the thrill of sending an enemy plummeting to earth. It's not an instant gratification game and will disappoint anyone who isn't prepared to give it some time and effort, but if you are it rewards you handsomely.

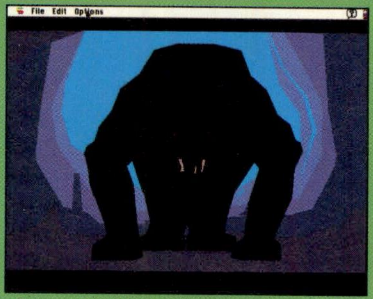
MacFormat Rating **88%**

Out of this world

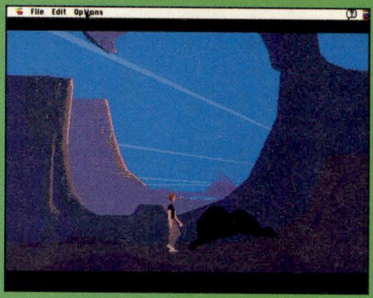
Another World

£46, Delphine/US Gold

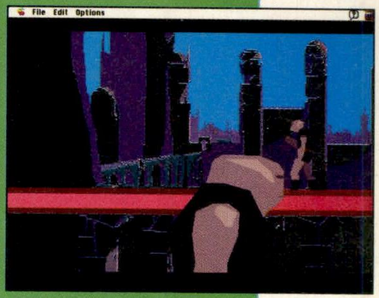
Requires: 256 colour, 2Mb RAM, hard disk, System 6.0.7 or higher, 1.44 Mb FD. Controls: Mouse, Keyboard or Gravis Mousestick



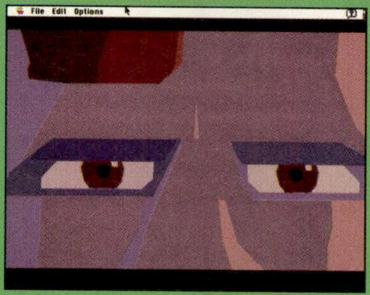
Oo-er, this thing doesn't look at all friendly, but just about nothing is on this strange world



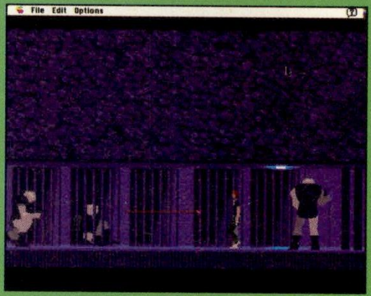
I think you'd better turn around and run away quickly before that thing sinks its claws into you



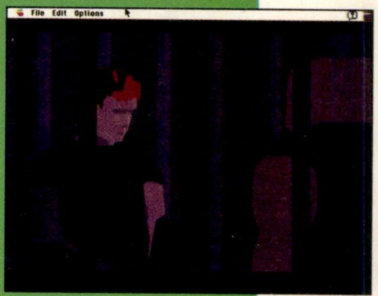
These lumpy mis-shapen things are the local inhabitants, but they aren't all bad – just most of them



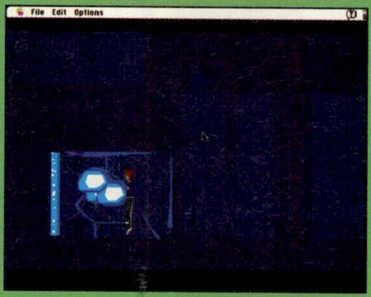
The graphic interlude sequences can be really good scene-setters – or has someone put a mirror on my monitor?



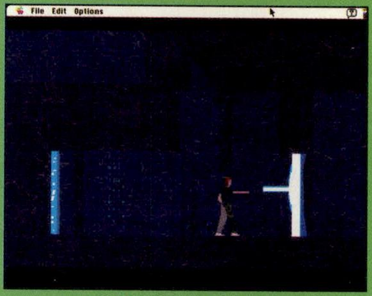
Be prepared for plenty of fast action – the guy on the left is shooting laser bolts at you – have at him!



Take a moment to pause and think to yourself, 'how the hell am I going to get out of this cage?'



Wow, this looks like fun. Maybe it's some sort of psychedelic virtual reality trip machine...



...or maybe it just recharges your gun so that you can blast solid walls into tiny pieces of alien rubble

Lester Chaykin is both the unluckiest and luckiest man on this, or any other planet. Unlucky because a billion to one accident occurred with his particle accelerator and blew a huge hole where he was sitting, lucky because he was somehow blasted into another world – where, fortunately for us, adventures await him.

You're never quite sure of where you are in *Another World*, but the title is certainly accurate – this isn't Kansas anymore, Toto.

Your aim in this animated adventure isn't that clear either, but suffice to say you had better concentrate on staying alive.

The full tale of how you ended up in this mess is told in a long and detailed animation at the start. The graphics are impressive and it serves as a good scene setter, but it's a drawn out sequence that you'll only want to sit through once, or use to impress your friends about what a marvellous machine your Mac is.

As you appear into the game proper you instantly find yourself zapped into trouble as you appear underwater – which isn't good for your lungs if you stay there. This sudden appearance of deadly danger sets the precedent for events later on. When you're a stranger in a hostile world you had better be ready for anything – unless of course you've played that bit of the game before. Basically what we have here is an action movie on computer and once you know how the script is supposed to go, you can follow it with little opportunity for ad libbing. However, no-one has given you a script yet.

The manual gives tips on how to survive your first couple of encounters with the native wildlife – which is very wild – but after that you're on your own and it's going to take a lot of trial and error before you will work out some of the problems.

The character you control is beautifully animated and walks, runs and jumps about the place as gracefully as a bunch of pixels can. You can also kick things if you get the urge, and later on in the game there's the chance to get some more powerful weaponry.

The game world is made up of flick screens – walk off the edge of one and the view will flick to the next screen and you had better be on the lookout for danger. On most of the screens there's something to solve, avoid, kill or investigate. You'll need both a sharp mind and good reflexes to cope with all the problems ahead, but with a bit of perseverance there's nothing that will hold you up for too long.

One of the potential problems with a game like this is that there are so many surprises that you keep getting killed off and have to start again. The authors have attempted to get round this by breaking the game into chunks for which you get passcodes. If you die you start the game at the last restart point you arrived at and can use the codes to return to it at a later date.

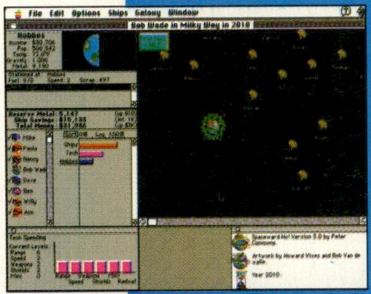
For the most part the restart points are frequent enough to stop you getting too bored with playing the same section over and over, but there are some sections that will take you many tries to work out what to do and then to accomplish it. It means the story aspect tends to lack flow, but it's better than having to start at the beginning every time you die.

Conclusion

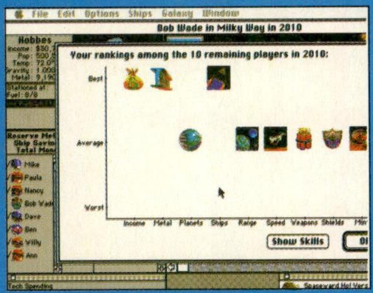
As an adventure this falls some way short of the complexity and depth that more conventional games have. However, it does have some superb animation and is well paced as a story. You'll find yourself getting hooked on discovering what happens next and this discovery aspect keeps things interesting. There's definitely some solid entertainment here, the only problem is you may finish it quickly and after that there's not much replay potential.

MacFormat Rating **72%**

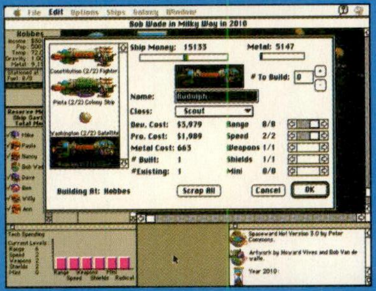
Spaceward Ho!



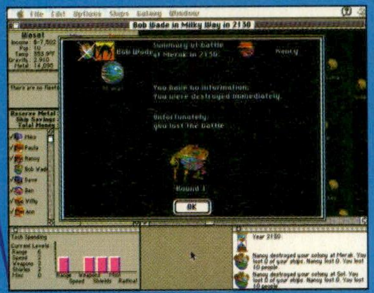
The galaxy is just waiting to be conquered, but those planets in view are just a small part of it


Bob Wade in Milky Way in 2010
Your rankings among the 10 remaining players in 2010:
Best
Average
Worst
Income Metal Planets Ships Range Speed Weapons Shields
Show Skills

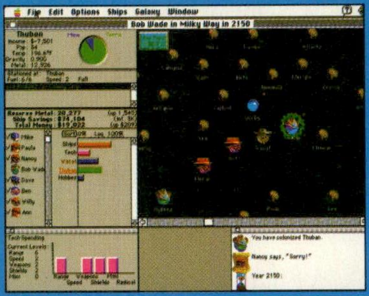
Find out how you measure up to the other players – the higher the marker, the better you're doing



You get to design and build lots of meaty ships, but getting the metal and money to do it is the hard part



Oh dear, some rotten swine called Nancy just trashed one of your planets – this means war!



It looks like you've got quite a fight on your hands as Nancy has already taken over two of your five planets

Spaceward Ho!

£58, Delta Tao Software

Requires: 1Mb RAM, System 6.0.5 or higher
Controls: Mouse

As you might guess from its name this game is all about achieving galactic domination and doing it in a good old Wild West style.

The first thing you're struck by is the simple packaging. It's very functional with both the disks and instructions contained in a ring-bound notepad.Don't let that put you off – as it says on the back of the book, 'big, fluffy boxes are evil. This software uses the manual as a box to minimise waste and environmental damage.' Quite right too.

Don't judge this book by its cover – it's no tatty bit of shareware that you'll play for ten minutes and throw away. It's true that the graphics aren't fancy – no slick animations or groovy backgrounds here – but *Spaceward Ho!* is about long lasting gameplay.

Getting stuck in

The basic premise is simple – you start in possession of a single star and have to conquer the entire galaxy by destroying all the other players in it. As well as being able to decide the size and density of your galaxy, you can pick from a list of galaxy types like cluster, spiral, circle and grid. How you choose here will have a considerable effect on how the game develops.

You can also choose how many other players there are in the game up to a maximum of 20. They can all be controlled by the computer or by human opponents if you're on a network. Naturally this multi-player element will add to the excitement and unpredictability of the action, but even if you stick to computer opponents they will give you as hard a fight as anyone.

The starting point for any would-be galactic tyrant is to explore other planets and to do this you have to build ships. There are four types of ships: scout, colony, fighter and satellite, and the only one of those that needs explaining is the satellite which is a non-moving defensive unit. To build these ships you need metal and money. Metal is mined from the planets, and planets with large enough populations produce income.

Off we go scouting the nearby planets looking for ones with lots of metal or with suitable temperature and gravity for us to 'terraform' them – or preferably both. And then some ugly son of a space mutant comes and shoots our ships and people to bits!

Clearly what's needed is some improvement in our technology and a more aggressive outlook. The more money you spend on research in weaponry, shields, speed, range, miniaturisation and radical work, the more you advance in those skills. Then all you have to do is go off to your ship design section and create bigger, better, faster and deadlier ships.

What technology you want to develop depends on the sort of galaxy you're in. If stars are far apart, you'll need to improve your ship's range; if metal is in short supply you'll need a lot of miniaturisation; and you never know what the radical research might turn up.

It's not all warlike stuff though. You can communicate with all the other players in the game and form alliances if both parties want to. These can be a useful source of information and possibly even resources, but don't get too attached because you're going to have to stomp them sometime.

Conclusion

This is a no-frills affair, but one that is absorbing to play. The variety of galaxies and the multi-player option mean that you won't tire of the game easily. The difficulty levels allow beginners to get an easy introduction, but if you want tough opponents you can fight the nastiest scum in the galaxy.

MacFormat Rating 77%

ame News ■ Game News ■ Game News ■ Game News ■ Game News ■ Game News ■ Game News ■ Game

Deus ex machina

There is excellent news for game players this month – Bullfrog is converting all its games to the Mac. Peter Molyneux, the designer of the classic games *Populous* and *Powermonger*, told us that his company had been working on Mac versions of its games for some time and that the results could be seen soon.

The first two games to make it on to the Mac will be the ageing classic *Populous* and the much more recent *Syndicate* which isn't out on any format yet. Following on later will be *Powermonger* and *Populous 2*.

The development of these games is good news for Mac owners; they are some of the most influential and widely-played. *Populous* gives you control of a race battling a rival tribe for survival and you have the opportunity to visit awesome disasters on your foes. It spawned a whole collection of derivative 'god' games and hasn't lost any of its addictiveness over the four years since its first incarnation.

Price and release details as soon as we have them.

Is that civilised?

Another game that caused huge excitement on other computers is *Civilization* from MicroProse and by the time you read this it will be available for the Mac at £35.

It's another game that is awesome in scale and ambition, because it puts you in charge of developing a civilization from mud hut level through to planet

Journeyman Project

The Journeyman Project

expected price: £93
Presto Studios/Softline

Requires: 256 colour Mac II, 13-inch monitor, 5Mb RAM, CD-ROM drive, System 6.07 or higher, *QuickTime* version 1.5.
Controls: Mouse or Keyboard

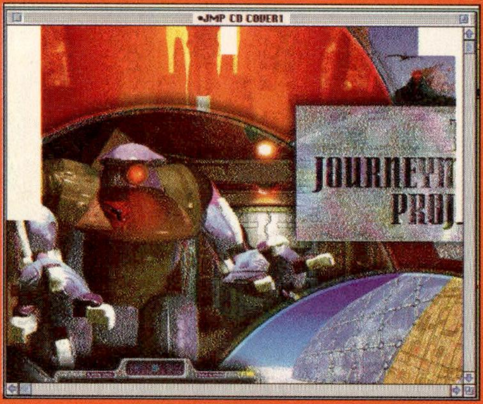
The Journeyman Project is set in a place called Caldoria in the year 2318, peace time. In 2308 aliens – who prefer to call themselves Cyrollians – visited Caldoria on a mission to 'invite humanity to join the "Symbrionity of Peaceful Beings,"' Hmm quite. Translated this means that they want all intelligent beings to get together and benefit from sharing knowledge and culture.

In a nutshell, mankind has been given ten years to deliberate their proposal, and when that time comes the aliens will send representatives to meet up with some people of Caldoria to make the offer a little more formal.

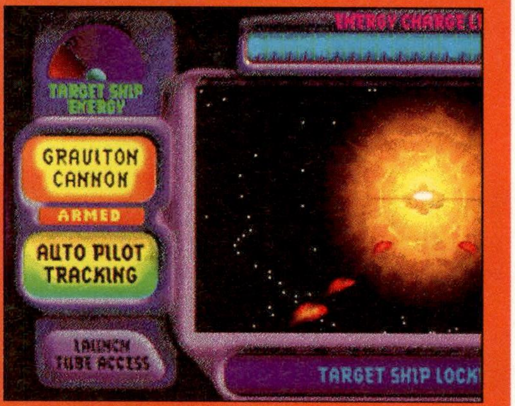
One of the great adventures of *The Journeyman Project* comes from time travel, a good piece of technology to have – as long as it's in the right hands.

This is where you come to the fore. To make sure that time travel is protected from certain unsavoury characters – whichever planet they come from – the government has formed an elite guard called the Temporal Protectorate.

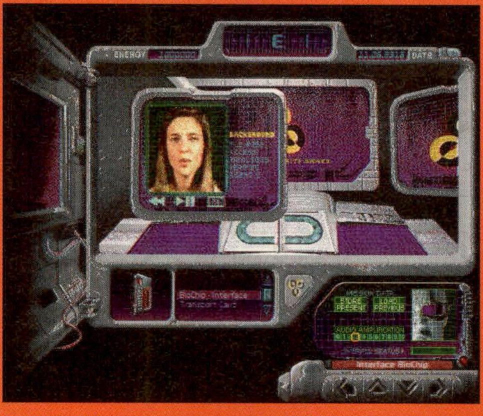
Pegasus, the only time machine known to man, is housed in Temporal Security Annexe. As a Temporal Protectorate agent it is your duty to keep a close watch of the space/time continuum, and the day you play *The Journeyman Project* is the day that the Cyrollians return to Caldoria.



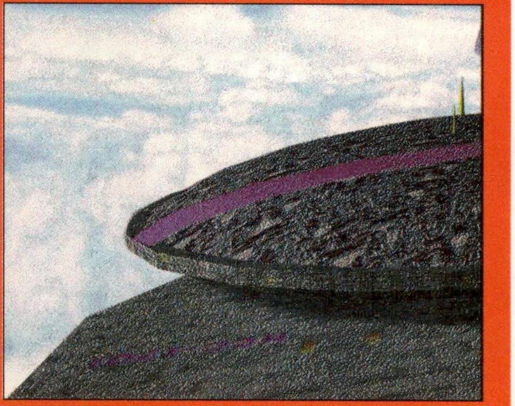
Play The Journeyman Project and enter a futuristic world with aliens, gadgets and a time machine



Interactive experiences of outerspace travel are about as realistic as you can get



A little bit anonamous and androidy, you can gather information from the Command Centre



There is a lot to discover, interactive devices, audio effects and superb photorealistc imagery

From the moment you are woken up and given insructions to go report to the Temporal Security Annexe, the game is an adventure of interactive discovery.

Use the Bio-Chip panel to keep a check on your energy level and to find your way around the future, past and present. If you get a bit stuck as to where to go and what to do at the beginning of your journey, spend some time discovering the work that has gone into creating this futuristic world. Click on various doors or objects to find out what they do and where or what they may lead you to.

The sound, visual and interactive effects really do create a futuristic, cold and androidy atmosphere, even if things seem to take quite a while to happen. More than the minimum 5Mb of RAM would probably help – the program can be launched in 5, 8 or even 16Mb modes.

Conclusion

The Journeyman Project is not really a game. As the title suggests, it's more of a project. The introduction is pretty long, something that you would only sit through once, so the next time you play, avoid the new game panel and click on 'Skip intro' instead – it saves a lot of time.

The graphics, animation, film and sound are great – there's over 30 minutes of *QuickTime* video involving pro actors, and a hi-fi stereo soundtrack. They really draw you into the screen, taking you inside a sci-fi world of adventure. However, there is one other vital thing that you need if you don't have bags of RAM, and that is patience. But if you do find things a tad slow; whatever happens next is still worth waiting for.

MacFormat rating **70%**

Game News

domination. The game comes from the fertile mind of Sid Meier, who has been responsible for a string of highly acclaimed games. We'll be giving you our definitive view of this strategy game in the next MacFormat.

The simmy season

If you're a fan of the Sim series of games then you'll be pleased to hear that Infogrames has released *Sim City De Luxe* containing not just the game but the Terrain Editor and Architecture 1 – Future Cities. Using these additions you can edit just about every detail of your simulated cities and build cities in three new times and places: the USA in the 21st century, the EC in 2155 and a Moon Base. All this for £45.

Pick up the fuzz

MacPlay is soon to release a CD-ROM title developed exclusively for the Mac called *In Search of the Fabulous Fuzzbox*. The 'interactive movie' features digitised speech and original rock'n'roll music and a plot that's as bizarre as they come.

The game is set in 2094 when followers of the Church of the Apocalypso worship dead 20th century rock stars. Among the Church's sacred relics is John Lennon's 'Fuzzbox' – used to distort his guitar for the single version of *Revolution*… allegedly.

It gets stolen and three odd bods – one of which is you – have to uncover clues and solve puzzles to find it. Keep your eyes peeled for the MacFormat review soon.

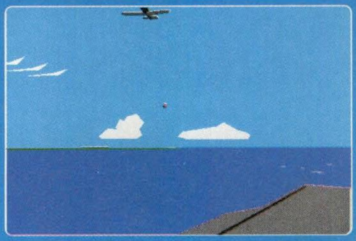
Great game!

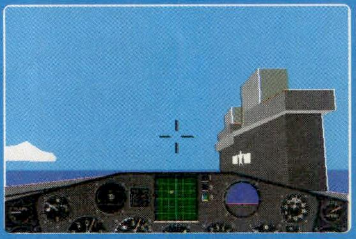
GAMEBUSTERS

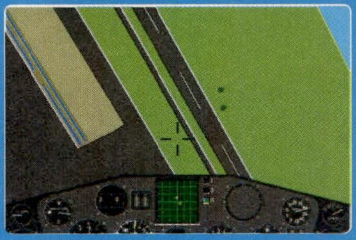
In Gamebusters we will give you the hints and tips you need to get stuck into some of the Mac's most exciting games

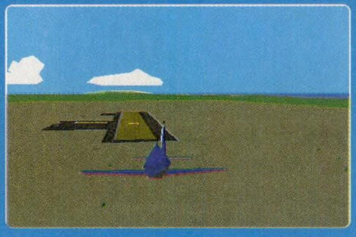
Kellie Simmons heads off into the skies as the pilot of a World War Two fighter plane in *Hellcats over the Pacific*, a high-speed flight simulation game

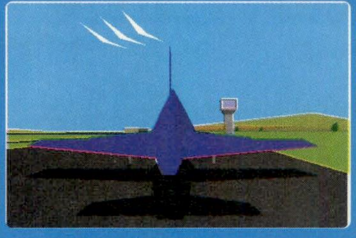
Hellcats over the Pacific

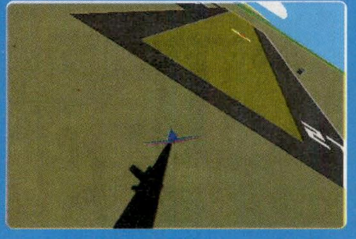

Aircraft carriers too well-defended? You can always practise on other targets


At the start of a mission, don't take more fuel on-board than you'll need


Dive-bombing: look out for enemy fighters – and remember to pull out in time


Use the rudder, not the ailerons, to turn while keeping the plane level


Hold down the brake and steer with the mouse for tight runway turns


Game over! It's much easier to ditch in water than try to crash-land

In the all-action *Hellcats* sim you become the pilot of a US F6F Hellcat fighter, battling over the Pacific during the Second World War. The action and reaction, sounds and other items are just about as realistic as you can get.

It takes years to become an ace fighter pilot in real life, but not so long on the Mac. However, unless you are used to flight simulator games, be prepared to practise. It may not take years to learn but it does require time and patience.

Here's a few handy flying tips to make life easier:

- Use your throttle wisely. Drop to about 80% once you get behind the bogey and shoot it out of the sky.
- If you want to look at the various *Hellcats* scenarios quickly, take a short cut. A hidden command will put you in the 'Superman chair', allowing you to move around at great speed. Type [control] [S] while playing. This will 'immobilise' your plane – you can then move it around with the following keys: [7] and [8] to go forward and [5] to stop. You can press the keys repeatedly to accelerate, but be careful with the speed as it can take you outside the game area.
- If you can't quite get the hang of the Zeros, practise with the training mission. Shape up your tight turns by using your flaps, gear and decreased throttle or use the [A] key while in flight. Keep track of your altitude. Pull out if you are down to 100 feet. The auto pilot locks onto the nearest plane on radar, follows the Zero around and tries to get behind it.
- Out-run a Zero that's behind you by using your flaps ([F] key) as an air brake to slow your plane, then turn right to the opposite heading from your original. When you're on the right heading, retract your flaps and gear and increase the throttle fully.
- When a target appears at the edge of your view, pull up sharply until you are vertical; climb until you are about to stall and pull over so that as you stall, your plane flips over and you are pointing straight down at the target.
- To pull out, hit the flaps the moment you drop the bombs and pull back to a steep climb until you reach 200 feet. Then pull level and retract the flaps. Never attempt this manoeuvre when there are enemy fighters around. They'll hit you when you slow down for the stall.
- Never underestimate the view from behind. From this vantage point you can see the AAA machine gun fire before it crosses your plane and thereby dodge potentially mission-ending bullets.
- There is a small village in the south east of Henderson Field – three houses and a lake – good for target practice.
- To get a Zero off your tail, start a tight turn, drop the gear, reduce thrust and kick the flaps.
- In most cases you probably won't require a full tank of gas – half at the most – so take no more than you need.
- If you don't need bombs, don't take them. If you do a good job of protecting the carrier, in some cases you can land on it again and re-arm with a bomb load.
- If you're on a runway (especially a carrier one), hold the brake ([space bar]) down, increase or decrease your throttle and steer with the mouse. This lets you turn in circles without moving – a great help when there's not much room.
- You can line yourself up with the runway using the rudder rather than the ailerons. This will keep your plane level but still allow you to move left and right. If you have a Gravis Mousestick, try setting the other two buttons to control the rudder.
- If your Hellcat is damaged, it's a lot easier to ditch in water than it is to land, even at an airfield.
- [command] [T] is the triple time option – the game goes three times as fast when you're over 500 feet. Make sure it's turned when you're trying to attack targets!
- If you want to cheat, the [e] key will give you the enemy viewpoint, [A] is for the autopilot and [control] [S] is the speed key to all over the scenario at high speeds.

Write now

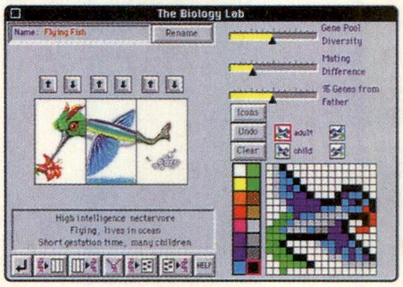
If you have any hints, tips or short cuts on a Mac game and would like to share your skill with other **MacFormat** games players, write in to Gamebusters, **MacFormat**, 30 Monmouth Street, Bath BA1 2BW – and we'll pay up to £100 for the best we print.

Where to get it ▼

Hellcats over the Pacific is made by Graphics Simulations Corporation, and is available from Softline (☎ 081 642 2255), price £39

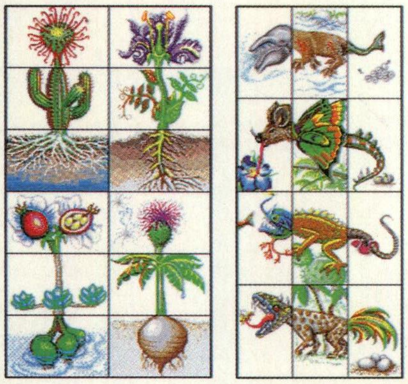
SIM LIFE™

THE GENETIC PLAYGROUND



High intelligence nectarvore
Flying, lives in ocean
Short gestation time, many children

Give life to different species in the Biology Lab and customise their look with the icon editor.



Design exotic plants and animals to survive in specific ecological niches.

As you take the SimLife discs out of their pack you hear strange celestial music. Load them up and a deep rumbling sound is heard in the distance; the cosmos twitches. You are about to become a major player in the game of life.

Until now you thought gene splicing involved ripped trousers... a balanced ecosystem was a new washing powder - and that genomes lived at the bottom of the garden? Now you'll find out different.

In SimLife, take the challenge of our inbuilt scenarios or create your own unique world where your imagination can run riot. Design plants and animals, then decide how they act, how (even who) they eat - even how they reproduce!

Now watch this world evolve in front of your very eyes, as a completely new environment takes shape under your command. Will you be responsible for producing a tropical paradise, an artic wasteland - or a planet inhabited by even stranger creatures than in this one?

More than a game. It's evolutionary.

Available for Apple Macintosh

PUBLISHED BY

MAXIS

Distributed by

MINDSCAPE

Mindscape International,
Priority House, Charles Avenue,
Maltings Park, Burgess Hill,
West Sussex RH15 9PQ
Tel: 0444 246333
Fax: 0444 248996

CUT OUT THIS COUPON AND POST IT IN AN ENVELOPE TO: FREEPOST, 'SIMLIFE' MINDSCAPE INTERNATIONAL LTD, PRIORITY HOUSE, CHARLES AVENUE, BURGESS HILL, WEST SUSSEX, RH15 9BR

YES, TELL ME MORE ABOUT 'SIMLIFE'.

NAME

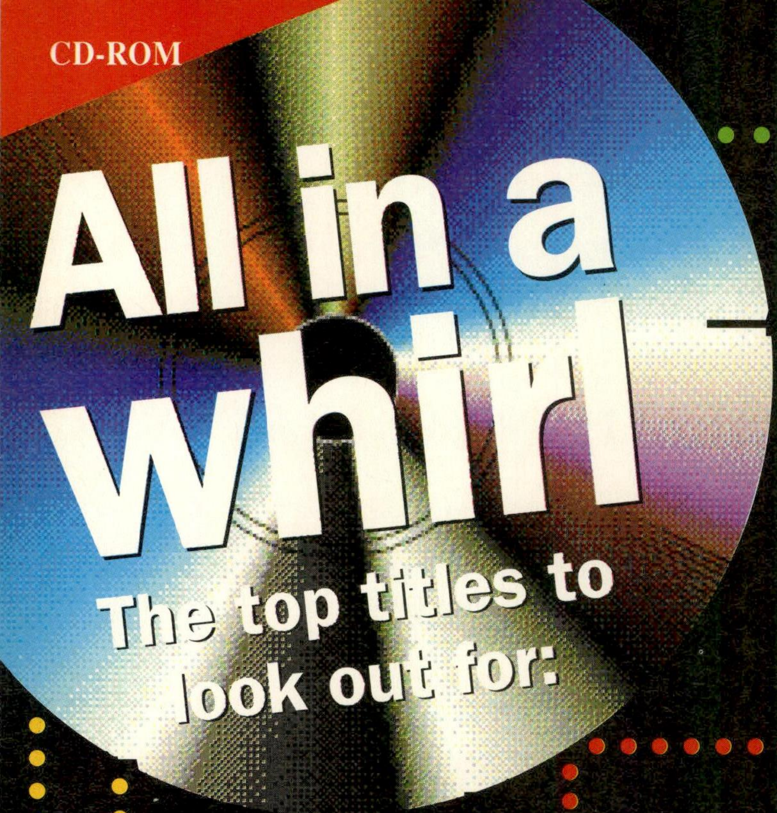
ADDRESS

POSTCODE

TEL

All in a whirl

The top titles to look out for:



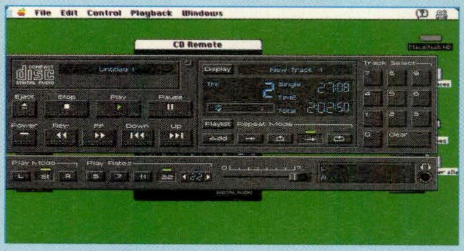
Shareware

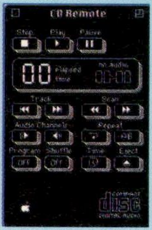
Shareware collections contain every kind of Mac software there is – albeit in a try-before-you-buy form.

CD7 v.3.0 is the latest version of what is reputedly the best-selling shareware CD-ROM and contains thousands of control panels, desk accessories and custom sounds. It also has all you need to customise and install the latest versions of System 7, 7.0 and 7.01.

Educorp Shareware v.7 also has a complete selection of Educorp software; fonts clip art, sound and lots more.

Music


File
Edit
Control
Playback
Windows
CD Remote
Eject
Stop
Play
Pause
Power
Rew
FF
Down
Up
Display
New Track
Single
Time
Total
Playlist
Repeat Mode
Add
Track Select
Clear
Play Mode
Play Rates


CD Remote
Stop
Play
Pause
00
Track
Scan
Audio Channels
Repeat
Program
Shuffle
Time
Eject

You can use CD-Rom drives to play audio CDs simply by extending your system software and running CD Remote

The classical genre seems to be the most catered for music in this format. *Beethoven – 9th Symphony* contains a CD recording of the symphony and a *HyperCard* program which includes a resumé of his life and times.

Other famous composers titles are *Mozart – Dissonant Quartet*, *Brahms – German Requiem* and *Composer Quest* which takes you through time to discover the world's greatest composers.

Alternatively, *Audioshop* makes you the composer, using sounds from either your Mac or your CD collection.

Literature

'To be or not to be?' – To buy or not to buy actually. Brush up your thespian act with the many and varied literary discs available, such as *Shakespeare – The Complete Works* and *Aesopolis*, an interactive world of over 100 fables in modern or Jacobean versions.

DTP

Time consuming publishing tasks have been greatly reduced with the introduction of DTP. *DeskTop Publishing v2.0* is a collection of DTP applications that can be copied onto your hard disk.

DTP and Typesetting, which is regarded as the standard reference in the field of desktop publishing, is also available on CD-ROM, and for Mac owners with a little more experience *DTPro* includes more than 550 high quality EPS format illustrations.

Newspapers

Collecting out snippets of information from a newspaper and keeping them for when you next need them is always an arduous task.

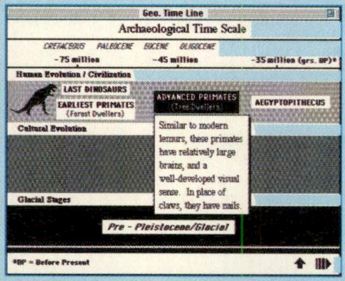
The latest edition of *Front Page News plus Business* is there to help, and covers August 1991 to June 1992. The titles are continually updated and usually contain 175,000 news stories.

The Guardian won best British newspaper on CD-ROM. A number of different

History

Follow the Gulf War through Western eyes in *Operation Desert Storm*. It gives an account of the war through photography, recordings, eyewitness information and correspondents' reports.

For ancient history buffs, *Timetable of History* (shown below) contains more than 6,000 stories with graphics, sound and motion.

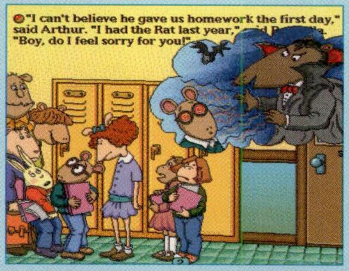

Geo. Time Line
Archaeological Time Scale
CRETACEOUS
PALEOCENE
EOCENE
OLIGOCENE
-75 million
-45 million
-35 million (yrs. BP)*
Human Evolution / Civilization
LAST DINOSAURS
EARLIEST PRIMATES
(Forest Dwellers)
ADVANCED PRIMATES
(Tree Dwellers)
AEGYPTOPITHECUS
Cultural Evolution
Glacial Stages
Pre - Pleistocene/Glacial
*BP = Before Present

Similar to modern lemurs, these primates have relatively large brains, and a well-developed visual sense. In place of claws, they have nails.

Entertainment

Voyager QuickTime Movies is a series of discs providing hours of entertainment. Performances and interviews with poets and artists can be found on *Poetry in Motion* while *Comic Book Confidential* includes historical footage, interviews and animation with comic artists.

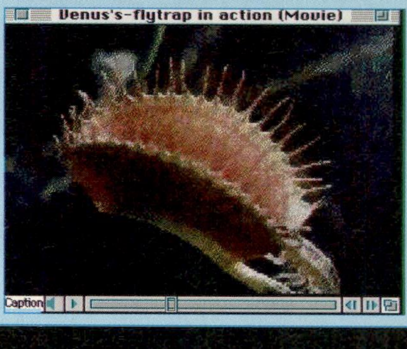
Arthur's Teacher Trouble, (below) although intended to be a learning title for young children, is very much a great interactive form of entertainment.


"I can't believe he gave us homework the first day," said Arthur. "I had the Rat last year,"
"Boy, do I feel sorry for you!"

Encyclopaedias

Encyclopedias are an ideal vehiclefor CD-ROM's storage capacity. The *New Grolier Multimedia Encyclopedia* (right) contains 21 volumes of the Academic American Encyclopedia. Its contents include video and animation as well as text and sound.

Compton's Family Encyclopedia contains a massive 26 volumes and includes images, graphs, sound, interaction and a multiple window world atlas.

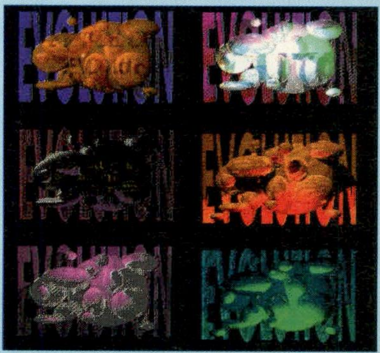

Venus's-flytrap in action (Movie)
Caption

Art

Perhaps the most colourful of CD-ROM art titles is *Image Warehouse* (pictured right) featuring royalty free clipart, illustrations for page layouts, adverts, photographic images and graphic resources for the Mac.

Impressionism looks at this particular form of art and its artists.

Money, Money, Money, as its title suggests, is a series of images of notes and coins in various currencies from a collection of over 100 photos and 25 Mac movies.



Business

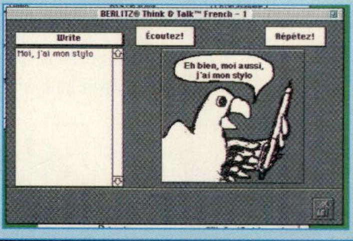
If your trade is business and planning, *Trade Opportinities (Volume II)* contains a huge database of worldwide trade information for sales and marketing planners including: company and contacts names, addresses and their corresponding industries.

Financial Times Graphics Source contains more than a thousand business-related graphics including: symbols, logos, line art, maps, graphs and charts.

Languages

Want to learn a foreign language? Do it by CD-ROM! Language discs are a great help when you don't have the time to join a college class.

Berlitz Think & Talk (below) starts from scratch through native speakers, recording your own voice, while *French for Business* is aimed at those who already have a basic knowledge in the same interactive format.


BERLITZ® Think & Talk™ French - 1
Write
Écoutez!
Répétez!
Moi, j'ai mon stylo
Eh bien, moi aussi, j'ai mon stylo

Travel

Travelling the world is an impossibility for some. *Countries of the World* is an easier alternative. It covers more than 150 nations with the help of recordings, images, maps and gives information on populations, geographical locations and environments.

Exotic Japan includes more than 16,000 recorded sounds of Japanese music and native speech.

America Vista and World Vista contains atlases with speech and music included.

King of the spinners

Now that CDs have migrated from hi-fi players to the Mac, there's a world of software titles awaiting you. All you need is a CD-ROM drive. Kellie Simmons gets all in a spin over her new desktop delight...

Apple's CD300 – available in internal and external versions, it's twice as fast as most CD-ROM drives and supports the new Kodak Photo CD format

According to Apple, ten per cent of all Mac owners have purchased CD-ROM drives. While this may well mean there are just under a million drives hooked up to Macs worldwide, UK users are only just beginning to embrace the new technology in any significant numbers. This is because drive prices have been too high over here – and there hasn't been a vast choice of titles. But the situation is slowly changing.

The leading CD-ROM distributors' catalogues feature well over 500 titles these days and there is now a brand new drive on the market which at last delivers cost and performance.

Power without Price

With the launch of its £325 CD300 CD-ROM drive, Apple is set to seed a booming market. Available in internal and external versions, it's twice as fast as most CD-ROM drives, has a choice of operating speeds and supports the new Kodak Photo CD format.

This is a compact disc-based medium for storing photographs – for around £13, you can have 24 of your favourite Kodak prints transferred to CD. The other bonus is that you can use the drive as a regular audio CD player by simply connecting its Audio Outs to your hi-fi. But the real value of the drive lies in its fast data accessing.

The CD300's improved data transfer rate and built-in 256K memory cache means that files containing high-quality video and animation can be accessed with none of the usual wait states. The drive has a number of other key features which, together, are making demand outstrip supply.

It supports two other new formats besides Photo CD – CD+G and CD+MIDI. Titles conforming to the CD+G standard mix audio, text and graphics while the CD+MIDI format allows professional and amateur musicians to use MIDI-synthesised music in a CD title more easily.

With the internal version of the drive, Apple is bundling a collection of nine CD-ROM titles free to introduce new CD300 users to the variety of information available on CD. These include: *Introduction to CD-ROM* and *Photo CD Sampler*, by EURO-CD, *Just Grandma and Me*, by Brøderbund, Apple's own *CD-ROM Titles Sampler* and *Alice to Ocean* by Rick Smolan.

The internal version, the CD 300i, is only available as a dealer installable option for any Mac with a 5.25-inch drive bay. The upgrade will cost you £288.

The 300's predecessor , the slower CD150 is still available at the slightly cheaper price of £265.

A CD for all?

Because of its varied capabilities, the general consensus is that CD-ROM is going to be as popular as your regular floppy disk drive. Already, Apple has its Performa 600CD machine available with built-in CD300 drive for a competitive price.

But prices for software remain relatively high. Most people agree that a lower price will create a bigger interest and provide a larger audience for the software which will, in turn, allow publishers to price the titles at more mass market, rather than niche prices.

The Mac/CD-ROM question is a chicken and egg situation which can only be resolved by initiatives precisely like the low-priced, high performance CD300. **mf**

Can I run CD-ROMs?

The answer is yes – as long as you have a CD-ROM drive of course! A CD-ROM hooks up to your machine – be it a Mac Plus or a Quadra – via its built-in SCSI port.

With cabling connected all you need do is install the Systems Extensions which come with the drive and you're away.

The CD-ROM appears on your desktop as a regular drive icon which can be opened and navigated just like any other. The only problem you may encounter is one of sheer bewilderment at the 500 Megabytes or so of folders and files at your fingertips!

How does a CD store so much information?

A CD-ROM disk can store up to 550MBytes of information; that's about the same as 330 high-density floppy disks. So how is this kind of compact storage made possible?

When a CD is mastered, all the data it is to contain resides as digital code, usually on 1 Gigabyte hard disks, which is then fed to a laser-cutting mastering device. A master CD is created by etching an array of tiny pits or indentations into its surface. The precise array of pits corresponds, as we shall see in a moment, to the original binary arrays of code representing information in the source hard disks. Once the CD has been checked for inaccuracies it is duplicated and covered by a transparent protective film.

A CD drive attempting to read in that data, uses a built-in laser and mirrors to shine light onto the disk's surface as the disc spins. If it detects one of the pits, the light deflects randomly – missing the machine's photo sensor. A '0' is read by the drive's controlling firmware. But if the light is reflected then it is registered by a number '1'. And, as we all know, computers just luuurve zeros and ones.

All a machine hooked up to the drive has to do is read off the binary data at a rate of 300K a second and re-convert the stream into bianry code, text, graphic, audio or video information. Sounds simple enough in theory, but look at how long it's taken to make it to the market at an affordable price.

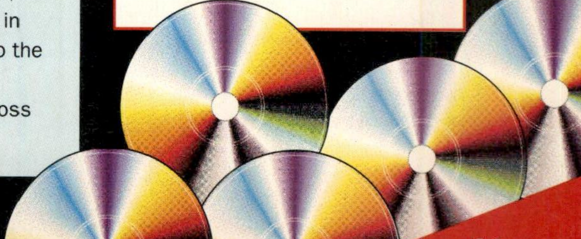
Given increasing volume sales of CD drives across all PC platforms, prices should drop significantly.

Where to ▼ get it

Apple's CD300 is available from your nearest Apple dealer – dial the operator and ask for freephone Apple.

For software prices, catalogues are available from:

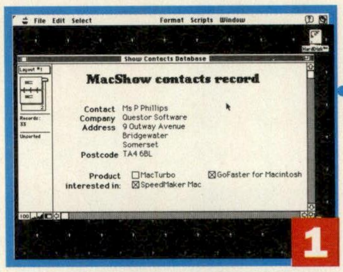
Optech – (0252) 714340
KimTek – (0202) 888873



WORD TIPS

Merge right

Microsoft Word 5.1 is an extremely powerful program, and one of its best features is mail merging – the combining of a standard letter with a list from a database to produce a set of customised letters, just like you get from Reader's Digest. Mail merging has long been regarded as something of a black art, and although Microsoft has done its best to simplify the process, it still takes some explaining. On these pages we show you how to create a simple merged letter and introduce the concept of using "IF" to make choices.

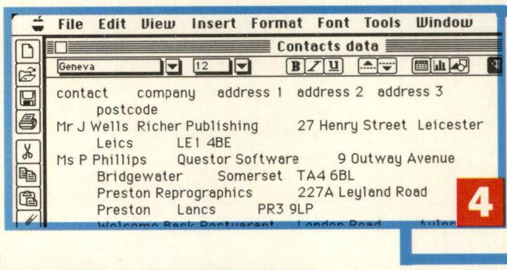

File Edit Select Format Scripts Window
Show Contacts Database
Layout #1
Records: 33
Unsorted
HardDisk™
1

MacShow contacts record

Contact Ms P Phillips
Company Questor Software
Address 9 Outway Avenue
Bridgewater
Somerset
Postcode TA4 6BL

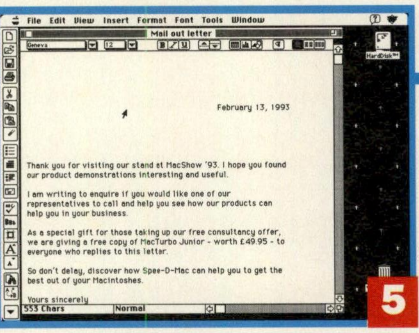
Product interested in: ☐ MacTurbo ☒ GoFaster for Macintosh ☒ SpeedMaker Mac

1. To create a mail merged document you start with the data you want to use – in this case the names and addresses from a contacts database in *FileMaker Pro.*


File Edit View Insert Format Font Tools Window
Contacts data
Geneva
12
4

```
contact	company	address 1	address 2	address 3
	postcode
Mr J Wells	Richer Publishing	27 Henry Street	Leicester
	Leics	LE1 4BE
Ms P Phillips	Questor Software	9 Outway Avenue
	Bridgewater	Somerset	TA4 6BL
	Preston Reprographics	227A Leyland Road
	Preston	Lancs	PR3 9LP
```

4. At the top of the file, type in the names of the pieces of information (fields) as they were in the database, with a tab between them. This is done so *Word* knows what is what when it incorporates the data into the letter. Then save the document.


File Edit View Insert Format Font Tools Window
Mail out letter
Geneva
12
HardDisk™
553 Chars
Normal
5

February 13, 1993

Thank you for visiting our stand at MacShow '93. I hope you found our product demonstrations interesting and useful.

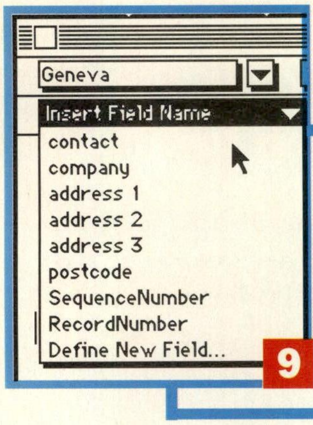
I am writing to enquire if you would like one of our representatives to call and help you see how our products can help you in your business.

As a special gift for those taking up our free consultancy offer, we are giving a free copy of MacTurbo Junior - worth £49.95 - to everyone who replies to this letter.

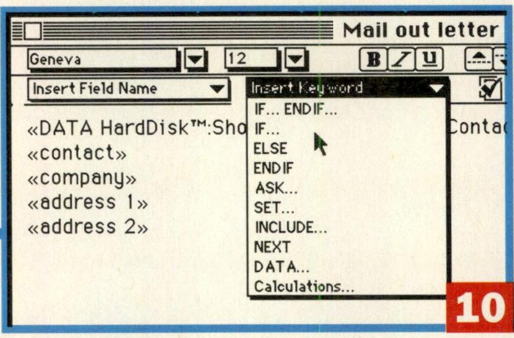
So don't delay, discover how Spee-D-Mac can help you to get the best out of your Macintoshes.

Yours sincerely

5. Now open the letter that you want to customise with the data.

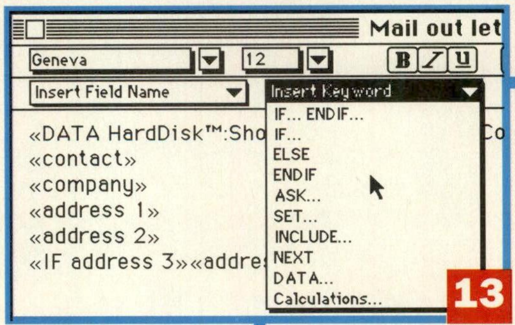

Geneva
Insert Field Name
contact
company
address 1
address 2
address 3
postcode
SequenceNumber
RecordNumber
Define New Field...
9

9. Now we can start specifying where in the letter the data is to go. Click where you want the contact name to appear in the document, then click on Insert Field Name and drag down to "contact". When you release the mouse, the command to insert the contact name at that point in the letter will be automatically inserted.


Mail out letter
Geneva
12
Insert Field Name
Insert Keyword
IF... ENDIF...
IF...
ELSE
ENDIF
ASK...
SET...
INCLUDE...
NEXT
DATA...
Calculations...
10

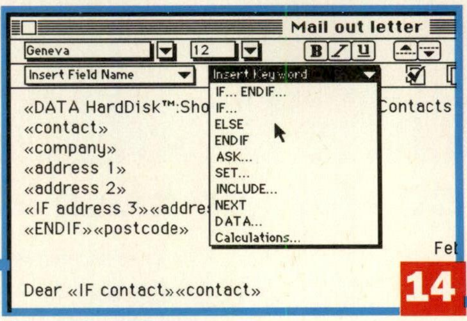
«DATA HardDisk™:Sho
«contact»
«company»
«address 1»
«address 2»

10. Add the company name and the first two lines of the address in the same way. We need to check if there is a third line to the address, otherwise there will be a space between the second line and the postcode. To check this we use the "IF" command – select where you want the third line to go, then click on Insert Commands and drag down to IF...


Mail out let
Geneva
12
Insert Field Name
Insert Keyword
IF... ENDIF...
IF...
ELSE
ENDIF
ASK...
SET...
INCLUDE...
NEXT
DATA...
Calculations...
13

«DATA HardDisk™:Sho
«contact»
«company»
«address 1»
«address 2»
«IF address 3»«addres

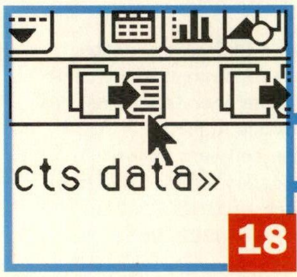
13. If there is something in "address 3" – that is, the statement was true – we want address 3 to be inserted, so add it with Insert Field name. Then tell *Word* the question has finished by adding the ENDIF command. Add it on the next line, and follow it directly by the postcode, otherwise a blank line will still appear.


Mail out letter
Geneva
12
Insert Field Name
Insert Keyword
IF... ENDIF...
IF...
ELSE
ENDIF
ASK...
SET...
INCLUDE...
NEXT
DATA...
Calculations...
14

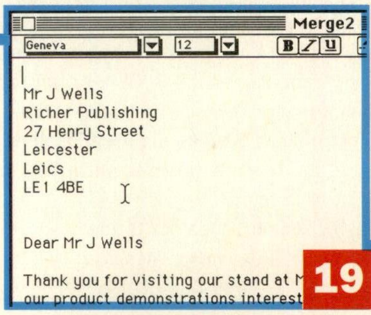
«DATA HardDisk™:Sho
«contact»
«company»
«address 1»
«address 2»
«IF address 3»«addres
«ENDIF»«postcode»

Dear «IF contact»«contact»

14. For the "Dear..." part at the start of the letter, you can use the same technique to check whether there is a contact name. In this case though, you want to put something in its place if there isn't a contact. To do this use the ELSE command, and follow it with "Sir" or the company name if you want to be non-sexist but ungrammatical.



18. Now we're ready to create the final document, which will contain as many copies of the letter, each personalised, as there were addresses in the data.

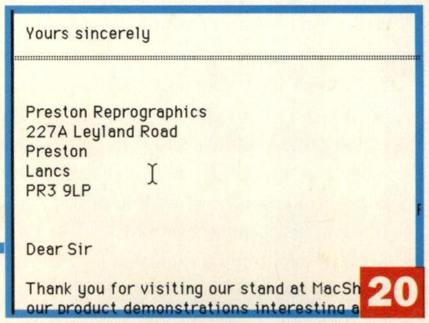

Merge2
Geneva
12
19

Mr J Wells
Richer Publishing
27 Henry Street
Leicester
Leics
LE1 4BE

Dear Mr J Wells

Thank you for visiting our stand at M
our product demonstrations interest

19. And here it is: a file containing all the letters.



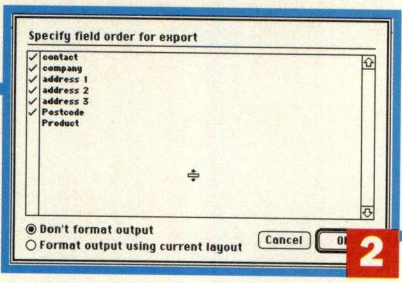
Yours sincerely

Preston Reprographics
227A Leyland Road
Preston
Lancs
PR3 9LP

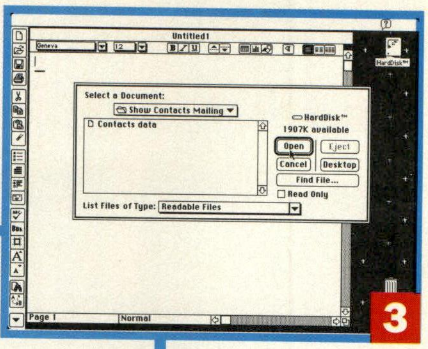
Dear Sir

Thank you for visiting our stand at MacSh
our product demonstrations interesting a

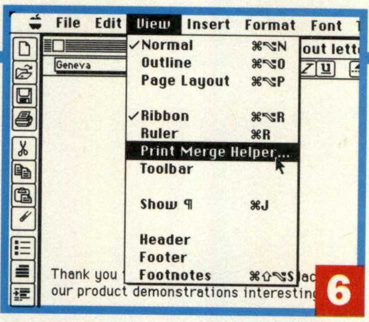
20. And the IF statements have worked. Now just Print...


Specify field order for export
✓ contact
✓ company
✓ address 1
✓ address 2
✓ address 3
✓ Postcode
Product
● Don't format output
○ Format output using current layout
Cancel
OK
2

2. Export just the data you want – in this case contact name, company name and the address – to a tab-separated text file. Make a note of what pieces of information (or "fields") you have exported; you'll need it in a minute.

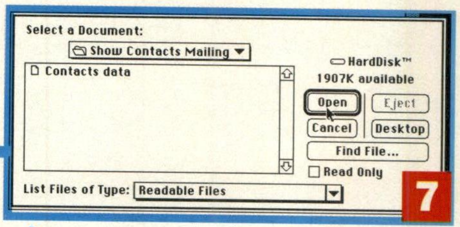

Untitled1
Geneva
12
Select a Document:
Show Contacts Mailing
HardDisk™
1907K available
Contacts data
Open
Eject
Cancel
Desktop
Find File...
☐ Read Only
List Files of Type: Readable Files
HardDisk™
Page 1
Normal
3

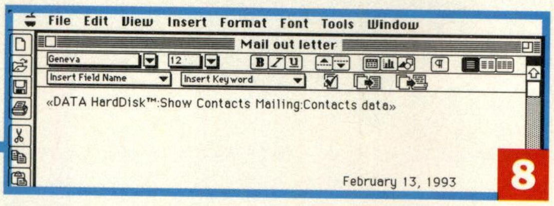
3. Then open *Word* and open the data file you've just exported.


File Edit View Insert Format Font
✓Normal ⌘⌥N
Outline ⌘⌥O
Page Layout ⌘⌥P
✓Ribbon ⌘⌥R
Ruler ⌘R
Print Merge Helper...
Toolbar
Show ¶ ⌘J
Header
Footer
Footnotes ⌘⇧⌥S
Geneva
out lett
Thank you
our product demonstrations interestin
6

6. Choose Print Merge Helper from the View menu, and...

7. ...tell *Word* where the file with the data from the database is.

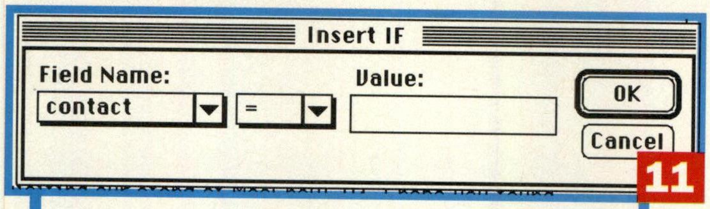

Select a Document:
Show Contacts Mailing
HardDisk™
1907K available
Contacts data
Open
Eject
Cancel
Desktop
Find File...
☐ Read Only
List Files of Type: Readable Files
7


File Edit View Insert Format Font Tools Window
Mail out letter
Geneva
12
Insert Field Name
Insert Keyword
8

«DATA HardDisk™:Show Contacts Mailing:Contacts data»

February 13, 1993

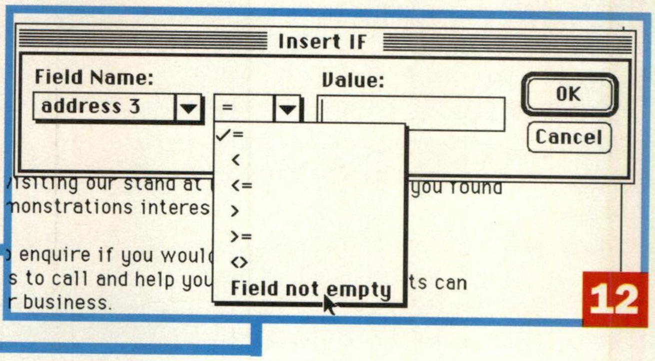
8. When you return to the letter, you'll find that *Word* has labelled it with where to find the data. Anything enclosed in "«»" is a merge command – it won't be printed directly, but will be interpreted instead. To make it easier to add these commands, a new strip of items has been added to the ruler at the top of the screen.


Insert IF
Value:
OK
Cancel
11

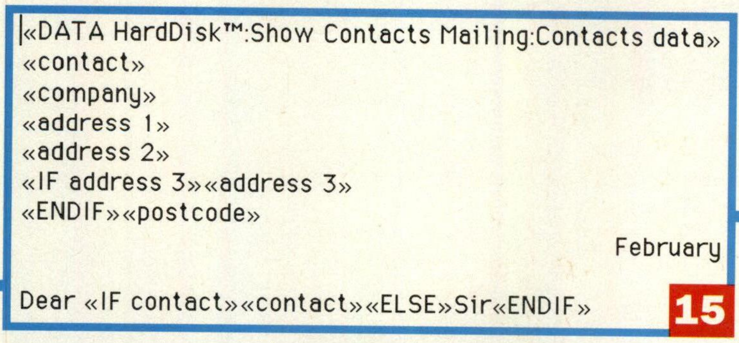
Field Name: contact =

11. The Insert IF dialogue box allows you to ask questions of the data. You make a statement here, and if it's true then the next command is executed; if it's false then it's not executed.

12. We want to ask if "address 3" has anything in it – that's the same as not empty, so set up this question and click OK.


Insert IF
Value:
OK
Cancel
✓=
<
<=
>
>=
<>
Field not empty
visiting our stand at
you found
monstrations interes
enquire if you woul
s to call and help you
ts can
r business.
12

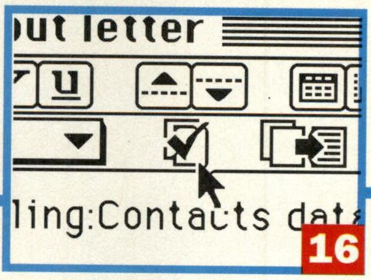
Field Name: address 3 =



«DATA HardDisk™:Show Contacts Mailing:Contacts data»
«contact»
«company»
«address 1»
«address 2»
«IF address 3»«address 3»
«ENDIF»«postcode»
February

Dear «IF contact»«contact»«ELSE»Sir«ENDIF»

15. The start of the letter should now look like this.

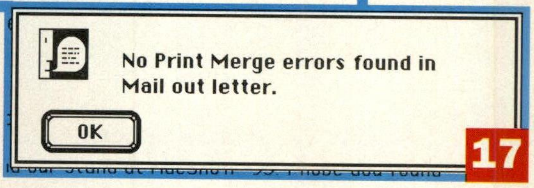

out letter
ling:Contacts dat
16

16. You can check that the commands have been entered correctly by clicking this icon.

What tips would you like to see?

MacFormat will be regularly featuring tips sections and tutorials like this one over the coming months. We have experts on virtually every program and field, who will be writing on their particular area of knowledge. We hope you'll find them informative and useful, but we need to know one thing: what should they be about? *Word*? *ClarisWorks*? *Excel*? *FileMaker*? *MacWrite*? *XPress*? *GreatWorks*? *FoxBase*? *PageMaker*? Write with your requests to MacFormat, 30 Monmouth Street, Bath BA1 2BW.

We'll take note of every suggestion.



No Print Merge errors found in Mail out letter.

17. And all is well.

Photos Courtesy of Imperial War Museum, London, England

"I can't say how much it hit me to be sitting up there, a couple of miles high, looking down on the battlefield, in fact, on four or five battlefields, and sweeping them all in one glorious bird's-eye view."

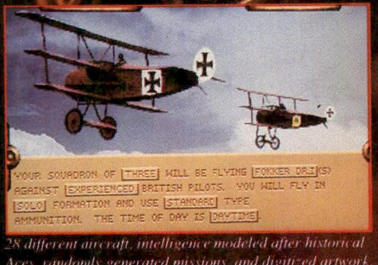
World War I Pilot

Red Baron™

It goes without saying that a good flight simulator recreates, in perfect detail, the elements that make an aircraft what it is — elements such as flight characteristics, weaponry, and the ability to sustain damage. To do less would be an affront to simulation purists everywhere.

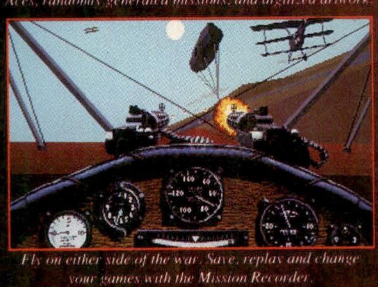
Red Baron takes the experience one step further by recreating not only the obvious details, but the *flavor* of the time. The humanity, the romance, the emotion that once filled the hearts of *"those daring young men in their flying machines."* It takes you backward in time to an age when aviation was in its infancy, and young pilots such as Eddie Rickenbacker, Billy Bishop and Manfred von Richthofen took to the air and invented the skills that would keep them alive. A time when fighter pilots of all nations formed a brotherhood that transcended allegiance. These men were the last true heroes — the legendary Aces.

Red Baron is more than a good flight simulator. It's an opportunity for you to discover what it was *really* like to be a fighting Ace in the war that launched aerial combat — World War I.

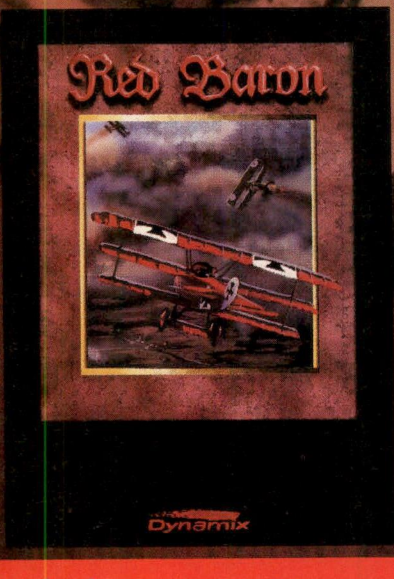


YOUR SQUADRON OF THREE WILL BE FLYING FOKKER DR.I(S) AGAINST EXPERIENCED BRITISH PILOTS. YOU WILL FLY IN SOLO FORMATION AND USE STANDARD TYPE AMMUNITION. THE TIME OF DAY IS DAYTIME.

28 different aircraft, intelligence modeled after historical Aces, randomly generated missions, and digitized artwork.



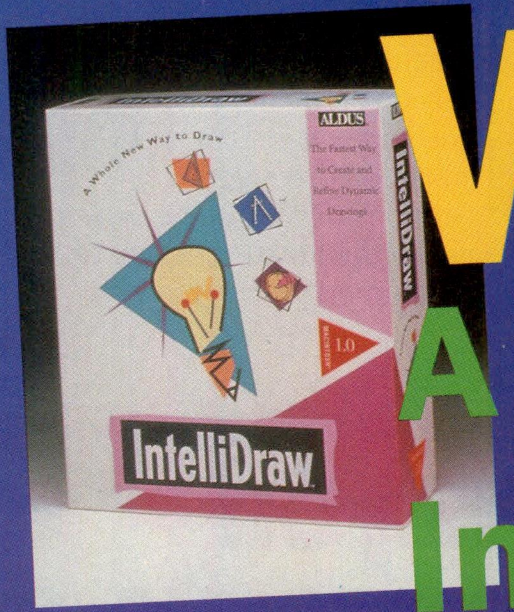
Fly on either side of the war. Save, replay and change your games with the Mission Recorder.



Dynamix®
PART OF THE SIERRA FAMILY

® is a registered trademark of Dynamix © 1990 Sierra On-Line, Inc.

Order Red Baron from your local software dealer, or call the Sierra Sales Department at 0734-303-322



WIN A copy of Aldus Intellidraw

Into graphics? Get smart get Intellidraw – free!

MacFormat is offering ten free copies of Aldus' 'smart' drawing program, *Intellidraw 1.0*, worth £150. The program gives you a whole new way to experiment visually, refine and show your ideas – and you don't have to be a designer to use it!

To help you get started, the program comes complete with a step-by-step training video in the box. With *IntelliDraw* you can create dynamic drawings in which objects stay aligned, distributed or connected in whatever way you want, even as the objects are moved or re-shaped, so making changes couldn't be simpler.

Automated, object-based controls let you draw graphics quickly and easily and pursue any number of 'what if' scenarios. A floating context-sensitive Info palette answers your questions about 'what' and 'how'. Special tools make it easy to edit shapes. For example, the Symmetrigon tool lets you draw multi-sided, symmetrical shapes automatically, without any need to join or duplicate pieces. With the Connectigon tool you can draw polygons whose sides remain attached even while the object is being moved or re-shaped.

You can also create complex shapes quickly by choosing commands from the shape menu to add shapes together or cut the shape of one object from another. The program's unique 'sticky connectors' allow you to join objects by lines that will stretch, rotate or remain rigid to keep objects connected, even when changes are made. An Auto Align command displays guidelines to show when corners, centres or edges of two objects have been aligned. *Aldus Intellidraw* comes with an extensive library of 'intelligent' templates and clip-art images, all of which can be used 'as is' or manipulated into your own specific drawing.

The questions:

1 Name the feature which allows you to join objects by lines that keep objects connected:
a) Link tool
b) Connectors
c) Sticky connectors

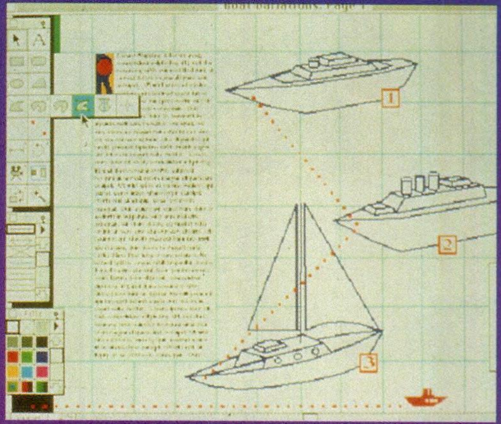
2 Which command displays guidelines to show when corners, centres or edges have been aligned?
a) Auto centre
b) Auto alignment
c) Auto align

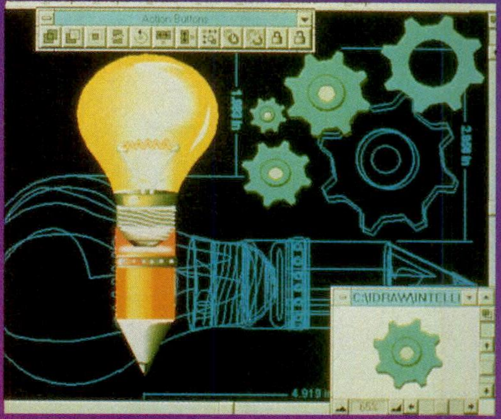
3 Which tool lets you automatically draw multi-sided, symmetrical shapes?
a) Pentagon
b) Symmetrigon
c) Connectigon

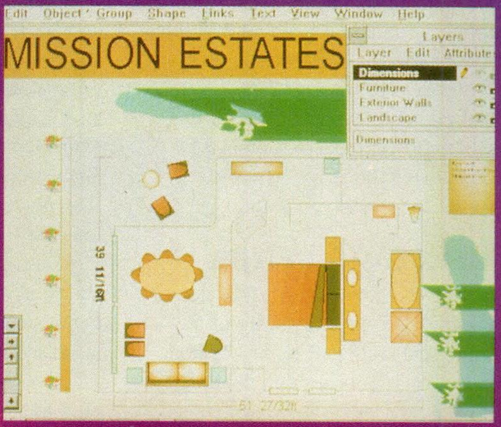
4 Which tool allows you to draw polygons whose sides remain attached?
a) Connectigon
b) Symmetrigon
c) Calgon

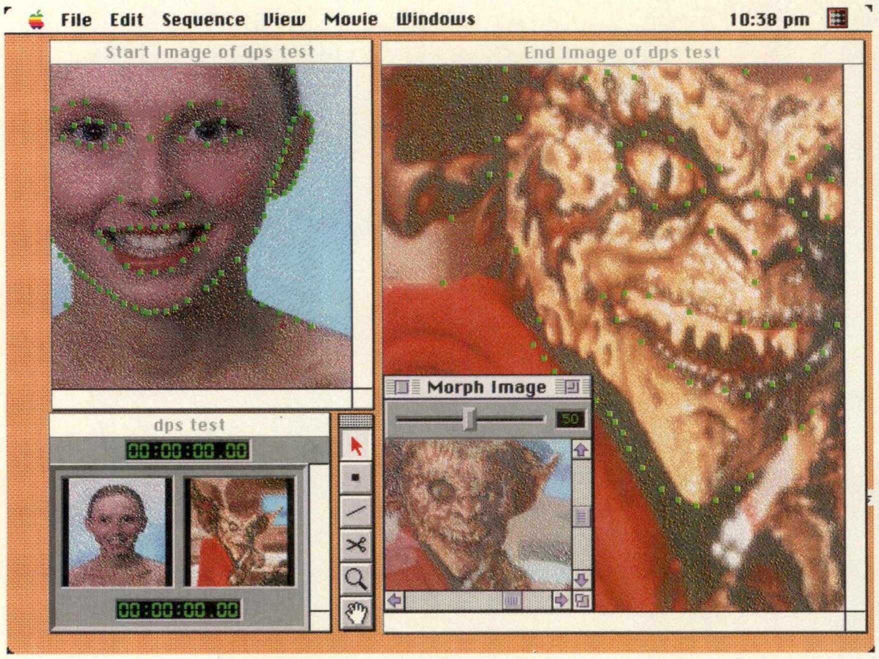
How to enter
Simply find the answers to the four questions below. Then write them on a postcard, along with your name and address, and send your entry to: IntelliComp, MacFormat, 30 Monmouth Street, Bath BA1 2BW, to arrive by Monday May 10 1993. The winners will be the first ten correct entries pulled from the mailbag after the closing date. Results will be announced in issue 3, out on July 6.

The competition is open to all readers of **MacFormat**, except employees of Future Publishing or Aldus UK Limited. Only one entry per reader is permitted, and the editor's decision is final.









The latest piece of visual wizardry in film and video is called 'morphing' – transforming one image into another by imperceptible steps. Gordon Druce explains how a new program enables you to perform magic on your Mac

How you can create a Megamorphosis

You may not realise it, but you've probably already been exposed to the visual magic of morphing. It could have been on TV, watching horses miraculously turning into cars. It may have been in music videos where you witness people of one race and colour turn into another in a simple smooth dissolve. Or maybe it was at your local cinema, when you saw the hugely popular 'cyberflick' *Terminator 2,* showing machine forms shifting into human forms and back again with seamless style.

Morphing has become the film and video world's latest gizmo. Now the folks at Gryphon software have made it possible to create morphs on the Mac. Although *Morph* will not turn your humble Lc into an 'Industrial Light and Magic workstation', it will let you go crazy in the digitally warping, molesting and modifying department, letting you meld symbols into objects, objects into humans… humans into… whatever you want.

Creating a morph

Before creating a morph you must check that your images are of the same size and resolution – 72 dots per inch – to ensure that the images display accurately on screen. This is also the time to do any tweaking of the original images, adding extra parts you might want to morph (or eliminating parts you don't), flipping or colouring, so what you have is a final working image. This has to be done in an image-processing program such as *Photoshop* or any paint program (remembering to save the finished document as a PICT file).

Morph is capable of working with all sorts of images, from video grabs to scanned-in drawings. But you will soon find out that a little judicious selection early on will yield better results. But don't let me stop you experimenting, morphing up a still of your pet guinea pig and a picture of your house!

When installing *Morph* you should insert the application disk and drag the Morph folder (and sample folder) to your hard disk, also dragging the *QuickTime* system extension to your System folder. Once all this is in place, restart your Mac and kick that application icon into life (well, a double-click will do). You are then presented with a storyboard window – this is the main window which contains one or more sequences.

A sequence is composed of two thumbnails – one image placed on the left (start image) and one on the right (end image). To produce these you double-click on the left-hand window to bring up an **Open** dialog box and select what you want as your start image, then repeat the procedure for the right-hand window (the end image).

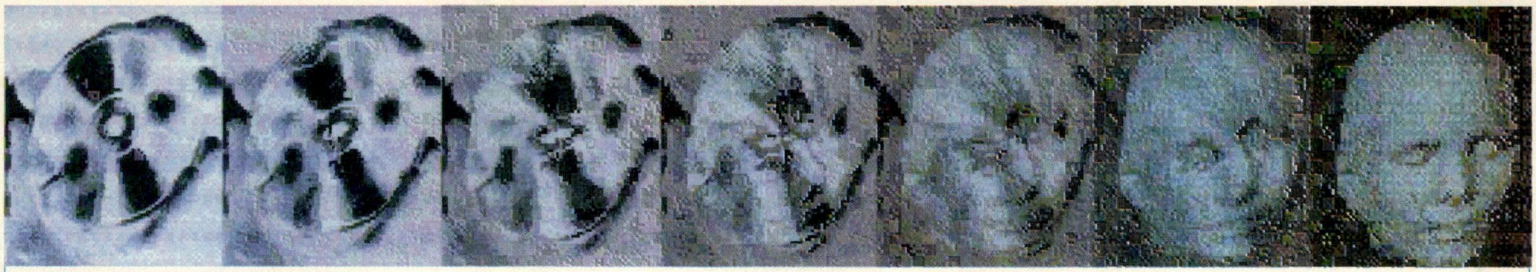
Morph is capable of working with all sorts of images, from video grabs to scanned-in drawings

So with your start image and end image in place, the fun is about to start – the critical step in the morphing process – the setting of the images' keypoints. Keypoints are the points used to define areas in both the start and end images that correspond to each other. When a morph transition is made, the keypoints of the start image will transform into the keypoints of the end image.

The keypoint tool is a small black square which, when selected, appears red when it's over the image, and goes green when you've placed it on the image by clicking. When you have dropped in a few keypoints on your start image – say around the eyes and mouth of a person – you can open the window of the end image to reveal its exact duplication.

Don't panic when it looks as though they're all in the wrong place. What you have to do is take the same points and drag them to their new positions. You select the adjusting tool (above the keypoint tool in the tool palette) to move all your keypoints in the end image to the desired position.

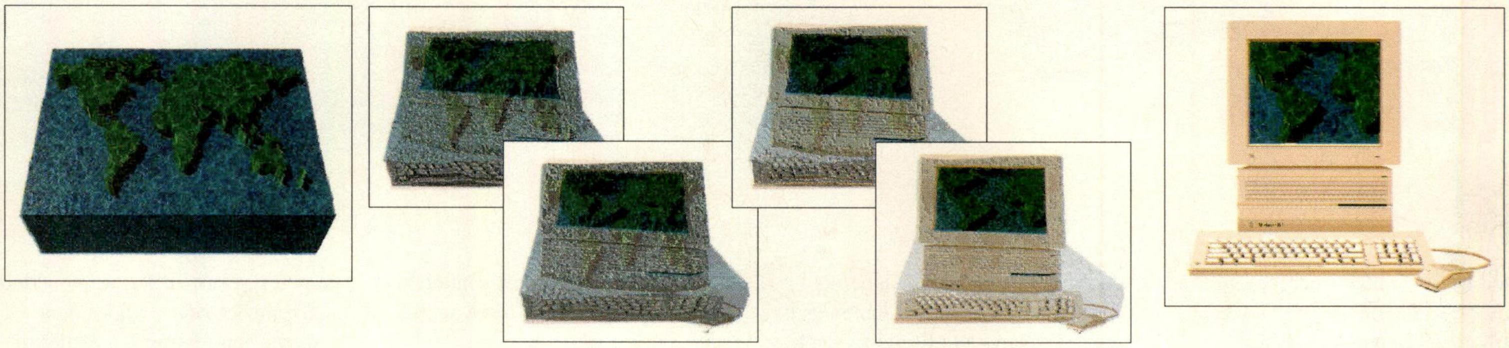
If, for instance, you did not go for the 'guinea pig and house' option, and you are working on a more prudent set of portraits of your loved ones, then the important areas to include (and take great care on positioning) are hairline, nostrils, lips and facial outline. Or, if you are working with two stills of cars, then great care is needed around the profile and wheels. You have the use of a magnifying tool to let you get in close, so you can sort out hairlines for example. It's best to work systematically, once you have put in a few keypoints on your start image, then check you are happy with it on the end image, because it is very easy (especially for small-screen users) to end up with a mass



Creating morph movies

It is possible to create morphs and then play them back on screen as *QuickTime* movies. *Morph* comes with a built-in *QuickTime* movie player, so you can save out your morph, then play your work back.

If you then wish to put the movie down on to video, you can save your morphs out as PICS or as individual PICT format files.



of keypoints – not knowing which is the 'parent' to which.

The greater the number of keypoints the piece has, the smoother the transition will be, and in a busy key-pointing session over (say) a set of portraits, you may well have accumulated some 200 or more keypoints. So if you need to rework an area of an image, it is possible to delete keypoints by simply selecting them with the adjusting tool and pressing **[delete]** from the keyboard.

The most natural way to work up your morph is by using joining keypoints. With the aid of the line tool, this enables you to define sets of points and link them up, so you can determine logical groups, such as eyes and mouth or wheels and windows. By using this method of grouping, it is easier to spot which keypoints belong to which areas of the images and how they correspond to each other.

To join a set of keypoints you pick the line tool from the tool palette, place the line tool over your chosen starting point and click, then move on to the next keypoint and click again. As you do this, a line will link each point clearly on screen. Once you have made your group, just click anywhere that is not a keypoint and you will be left with your groups in place.

If you are working quickly or just doing a rough set of points, you can drop keypoints in and at the same time join them, by pressing the **[option]** key when using the keypoint tool. If you wish to cut a line, you just select the scissors from the tool palette and place them over the keypoint, and click.

Once all the keypoints are in place, it is time to 'morph it up'. At this point you have the option of morphing one image at a time (using the 'morph' command) or of automatically setting in-between frames to make a morph *QuickTime* movie. You also have control over your output quality – under the **Sequence** menu you have a quality command with two settings, **Good** ....

Jargon Busters

Control slider: a slider found on top of the *Morph* image window, used to set what percentage of the end image will contribute to the morph

Compressor: used to reduce both the size of still images and playback time of *QuickTime* movies

Frame rate: the rate in seconds at which a movie's frames are actually displayed on-screen. In *QuickTime*, the frame rate a movie's recorded at may be different from the frame rate at which it is being displayed. On very fast machines, the playback frame rate may be faster than the record frame rate

JPEG: a worldwide standard for still image compression, set by the Joint Photographic Experts Group, permitting 24-bit images to be compressed to approximately a tenth of their original size with no apparent loss in quality

Key frame: the term given to any temporally-compressed sequences of image data that do not rely on other samples in that sequence for any of their information

Keyframe rate: the rate at which keyframes are generated in compressed video. Keyframes are stand-alone frames that are used for fast random access and reverse play. They must be used to maintain audio/video synchronisation

Keypoints: the points used to define areas in both the 'start' and 'end' images that correspond to each other

NTSC: the US and Japanese standard used for representing video. NTSC resolution contains 525 lines, runs at 30 frames per second (FPS) and is typically generated at 640 x 480 resolution.

NTSC video is interlaced, meaning that alternate fields each contain alternating scanlines of data to form a full frame

PAL: The UK standard for representing video. PAL resolution contains 625 lines and generates 768 x 576 pixel displays. It runs at 25 FPS and is also interlaced

PICT: the Macintosh standard graphics file format

PICS: a Macintosh animation file format containing a series of PICT images stored as resources

Tension: the value used in the colour and the position shift sliders.

This value determines the relative percentage that the 'start' and 'end' images contribute to the final morph

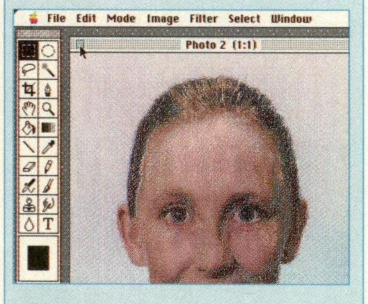
Thumbnails: the black (empty) square regions in a sequence, used to place a preview of the start and end image

CREATE A MORPH IN SIX EASY STEPS

1

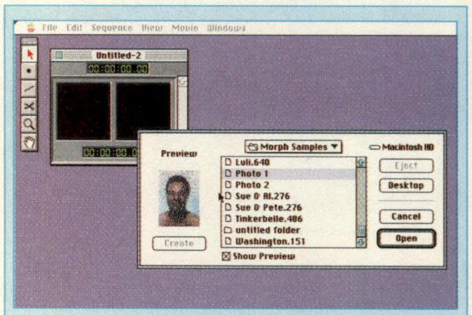
Select two images,for scanning a photograph, drawings, video clips, in colour or black and white (or a combination)...

2



...Then edit your scan using a paint or image processing program, making both images the same size and sampling them to 72 dot per inch, then save to PICT file format...

3



... Copy the Morph Application to your hard disk, then open a new document, double click on the lefthand black square (thumbnail) and select your start image. Then the same for the right side (end image) ...

.... and **Better**. The former is ideal for your *QuickTime* movies and any low-resolution output of still images. The latter is tuned up for high-quality stills and video output.

If you just want to make a single frame morph, then select the 'Morph Image' window from the **Windows** menu and you will see along the top of the image window a slider control, which you can set at any percentage from 1 to100. This allows you to mix your start and end images to your heart's content. Setting your slider at a midway point will give you an in-between blend of your start and end images.

The first and most important decision you have to take before embarking on any *Morph* movies is the actual amount of time for each transition. If your planned movie is composed of a single transition – that's one single sequence, one start image to one end image – then its duration determines the movie's length. To set up your timings you use the time display below each sequence in the **Storyboard** window, showing hours, minutes, seconds and hundredths of a second. These are very easy to control by clicking on the numbers; small arrows appear to let you increase or decrease them as you like. The movie duration display at the top of the **Storyboard** window cannot be modified because this is the actual running time of the movie.

Image compression

With your movie times in place, you must now compress the images. In the **File** menu under **Compression** you will find the **Compression Settings** window, with a colour PICT preview of a human eye, giving you an idea of the different types of quality available under particular compressors. There are various types of compression dependent on compression ratios, speed or image quality. *Morph* has five different types – Apple animation, graphics, photo-JPEG, Apple video and compact video. Choosing a compression routine is a matter of checking to see what best suits your images and requirements.

Also in the **Compression Settings** window is the frame rate setting. The frame rate determines how many frames *Morph* will generate for each second of the movie. This can be any number you care to dial in or, more commonly, it will be a set of standard values such as 25 frames per second (FPS), which is PAL standard (European TV standard, apart from France), or 30 FPS, which is NTSC standard (the US and Japanese standard).

So, just what is morphing and how exactly does it work?

In its simplest terms morphing is a process of transforming two images gradually into each other. This means a combination of taking the main features of the first image and changing them into the form of the second (warping) and at the same time dissolving (or cross-fading) the pixel colours between the first image and the second. This might be something as straight forward as the face of a young man turning into the face of an old man, or more interestingly the effects of T1000 in Terminator 2 being morphed between its cyborg form and its human form.

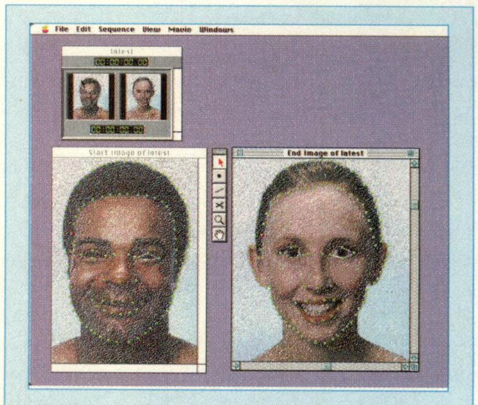
These effects all hang on the user's ability to capture an image by video camera or the frames of an animation, or scanned images/slides by whatever means, and then importing the image into a computer system to be morphed.

With two images selected (they can be of any type, colour, black and white or a combination of both) the only prerequisite is that they are the same dimensions and resolution. If they are not, then they must be resampled in an image processing program.

The two images represent your morphing start image and end image. With both images in place the critical part of the morphing process starts with the key points.

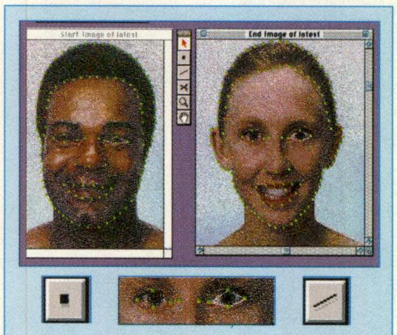
The key points are set in place on the start image (see picture on placing your key points) and will move to the specific place on the end image; click on one of the two images a corresponding key point will automatically appear in the other.

This part of the morphing process is where the most care and attention must be taken, to ensure the smoothest possible transition between start and end images. The quality of the morph is directly related to the number of key points used and their relative position; the more key points you clicked and the more care with the placement, the slicker the final morph will be.



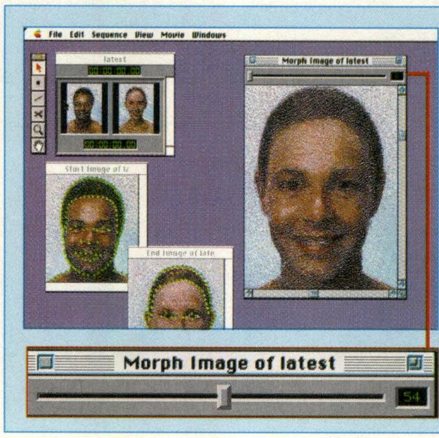
When placing your key points, work systematically. Make a few points (on the start image) then check on the end image, as it is easy to lose your place and end up with a mass of key points, not knowing which point belongs to which part of the picture

4



... Now start to set your key points. You can set the points individually (see left eye) or with the line tool which links the points (see right eye) ...

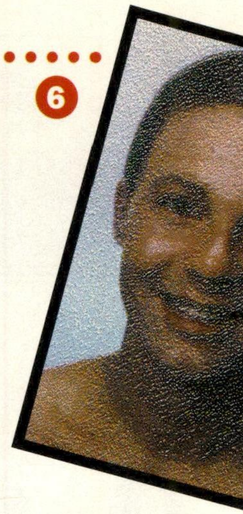
5



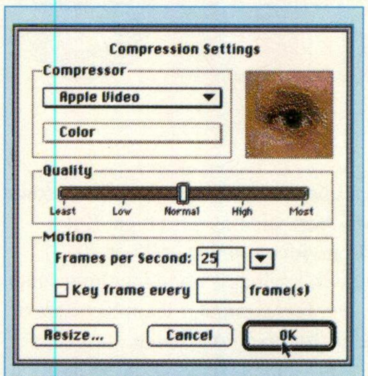
... Once all the key points are in place, then select the *Morph* image window from the windows menu.

Move the ***Morph* Control Slider** to a midway point (around 50%) and select **Morph** from the sequence menu. The image will appear in the **Morph Image Window**. Try a few morphs by moving the control slider a little towards one side of the midway point and select **Morph**, until you are happy with the results...

6



...and finally what you have been waiting for; the fully morphed image


Compression Settings

Compressor: Apple Video

Color

Quality: Least Low Normal High Most

Motion

Frames per Second: 25

☐ Key frame every [ ] frame(s)

The **Compression** setting window gives you control of quality (with preview), frame rate (set to 25 FPS which is PAL, the European TV standard – except for France) and compression type

Below the FPS box is the **Key frame** setting. The key frame is a sample image in the sequence of temporally-compressed samples that does not rely on other samples in that sequence for any of its information. So if, for instance, you set one key frame every 25 seconds, the compressor will work more efficiently than if you did not set any key frames at all. This means that using a Key Frame setting of about this level will enable you to play back your *QuickTime* movies more quickly.

You can also resize the dimensions of your images from the **Compression settings** window, before you save out your movie, and the rest is plain sailing… Go to **Save Movie** in the **File** menu, give your *Morph* movie a name and select an output – *QuickTime* movie, PICS file or individual PICTs.

If you wish to play back your masterpiece, you can use either *Morph's* built-in *QuickTime* movie player or an external player. To access the morph player you just select **Open movie** from the **File** menu and, when the player opens, click **Play** on the bottom corner of the window. You can also set the player to automatically loop the movie and loop back and forth. This function is accessed through the **Movie** menu and gives you a continuous play-back facility. If you are outputting to video (or film) then you can save out as a *QuickTime* movie – if you have video tape recorder controller software that supports *QuickTime*. If not, you can save out the movie as individual frames (in PICT format) or as a PICS file.

Morphing mayhem

Morph really is an open-ended piece of software – what it can do for you, and what its end-products end up like, are very much up to you and your imagination. It is possible to blend and meld images into different parts of other images; for instance, it is a very quick and simple procedure to create a simple effect of a scanned image of a head that appears to rise up out of a CD disk and drop back into it again.

In what's loosely called the special effects side of things, it is possible to call up the 'tension' sliders. If you **[option]**-click on the desired keypoint with the adjusting tool, you are presented with two tension slider controls. One is for controlling colour, the other position shift. These sliders give you control over the relative amount that the start image and end image keypoints contribute to the movie.

If the sliders are moved towards zero, then the start image will contribute to the movie for a longer time, followed by a quick shift towards the end image. The colour controller is useful if you want to keep colour information longer in one part of the movie; you can do this by holding it back in the start image and then suddenly letting loose the colour into the end image at the last moment.

The only real gripes about *Morph* are that you don't appear to be able to group keypoints. This would be a useful feature when you are moving a number of keypoints around which are in the right shape but the wrong position.

The other niggle is the fact that *Morph* assumes you are set up with a good quality scanner and machine with 5Mb of RAM (you really need 8Mb) plus a large hard disk and image-processing software like *Photoshop* (or *Colour MacCheese* at the budget end). This puts the package out of the reach of all but the most well-heeled.

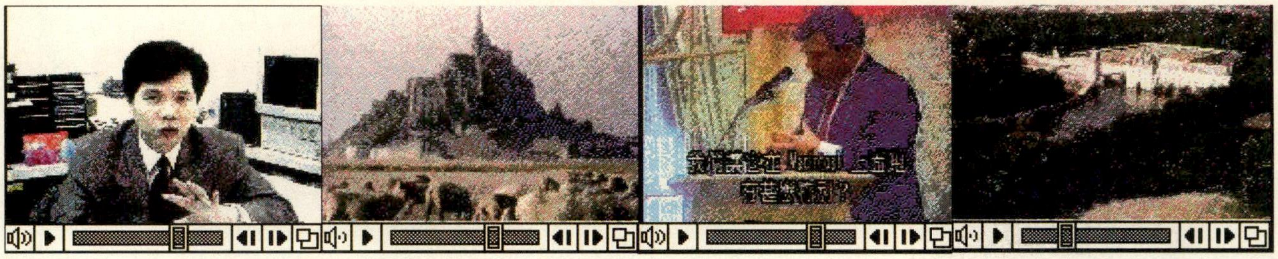
But, that said, *Morph* is a very well-presented piece of software, intuitive to use and – most of all – great fun. You can get some stunning quality results within just a few hours, and, for a change, the price is not too outrageous. **mf**

Morph

Ease of use	90%
Documentation	90%
Features	80%
Value for money	85%
Overall rating	90%

Where to get it

Morph version 1.1 is produced by Gryphon Software, and is available in the UKi from Softline, tel 081 642 2255. The recommended retail price is £116, though you may be able to find it cheaper by shopping around.



A quick guide to QuickTime

With Apple's *QuickTime* video extension, anyone running System 7 or 6.0.7 with at least 2Mb of RAM can import, create and edit their own video movies. Andy Storer introduces you to the tools and terms you need to know to become a desktop director...

A copy of *QuickTime 1.5* is now bundled with all new Macs and if you open your **System Extensions** folder you'll find it tucked away there just waiting to be fired up. But double-clicking on its icon will achieve precisely nothing because *QuickTime* isn't a program as such – it's a software extension to your Mac's operating system which enables applications to recognise video in the same way as they recognise text, graphic images, animations and sounds – as just another data type.

So as long as the host application supports *QuickTime* – and programs like *WordPerfect 2.1* and *Morph* are just the first of many, one hopes that will – video clips of a length only constrained by the amount of storage space you have to hand, can be included in documents and copied and pasted between them.

This is all quite revolutionary stuff – because to date, moving video has consumed such massive amounts of storage space and memory and required such powerful processors to pump it to the screen that no personal computers have been able to handle it.

The way *QuickTime* overcomes these constraints is through compression. It stores the moving images, graphics, animations and sounds comprising its clips as compacted code and only de-compresses them when they're being viewed on screen.

The engines at the heart of this compression are the Apple Video Compressor and Apple Photo Compressor which can squeeze data to a tenth or less of its original size with no visible loss in quality. The trade-off is that to run at realistic speeds – 20 frames a second or more – the resultant video clips have to run in small windows – typically only 6cm wide by 4cm high. But displaying 24-bit video running at 25 or 30 frames a second in a window no matter how small is something very few computer manufacturers or software vendors have yet to achieve.

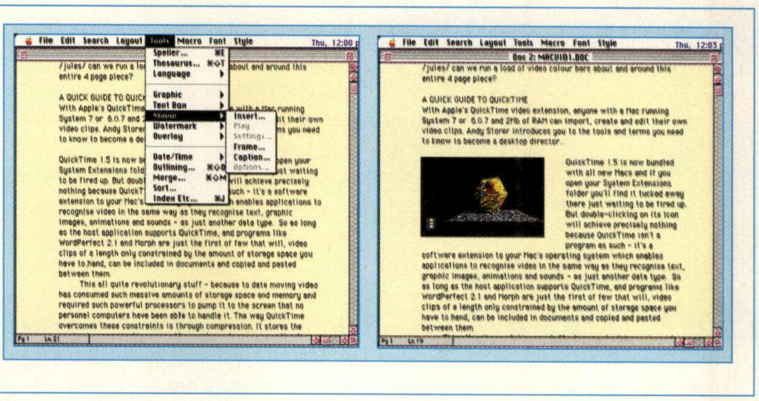
Which is why Apple is making the technology platform-independent by creating a new file type standard. And, as you might expect, *QuickTime* is currently migrating to Windows PCs. So whatever combination of images and sounds it contains, a *QuickTime* clip constitutes a new generic file type called Movie.

Movie files can be viewed on 8-bit displays although, as with everything in the Mac world, best results are achieved through monitors hooked up to 24-bit display cards. The point being, though, that hardware and software manufacturers have a base standard for which they can develop compatible products which will run on any System 6.0.7 or System 7 Mac irrespective of its configuration.

Which is all very fine, but what does it imply? Well, by integrating *QuickTime* into the Mac's operating system, Apple is making it easy for software developers to incorporate movie capability into their product upgrades. So you might reasonably expect the most popular productivity titles in the choice of databases, spreadsheets and word processors to feature any of the media *QuickTime* handles. Movie and photo databases – yes; word processors with captioned pictures that move when clicked – yes; spreadsheets with cells annotated by your accountant – maybe; online help systems and manuals – maybe. But Apple's more fanciful visions of video e-mail across local

Future Perfect?

WordPerfect 2.1 is the first word processor to feature *QuickTime* capability. Inserting a movie into an open document couldn't be easier. All you have to do is select the insertion point by clicking your cursor to the desired position and select **Tools** from the menu bar. Dropping down to **Movie** you merely select **Insert** and it's job done. Clicking on the movie after it's loaded into position reveals a movie controller with which you can play or frame advance the resultant starting image of the clip. Once in the document the movie can be re-positioned, resized and have captions added. Saving the document automatically saves the movie as part of the file so it can be viewed by anyone else running *WordPerfect 2.1*. Simple and fun – but too fanciful?



/jules/ can we run a lo about and around this
entire 4 page piece?

A QUICK GUIDE TO QUICK
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/jules/ can we run a load of video colour bars about and around this
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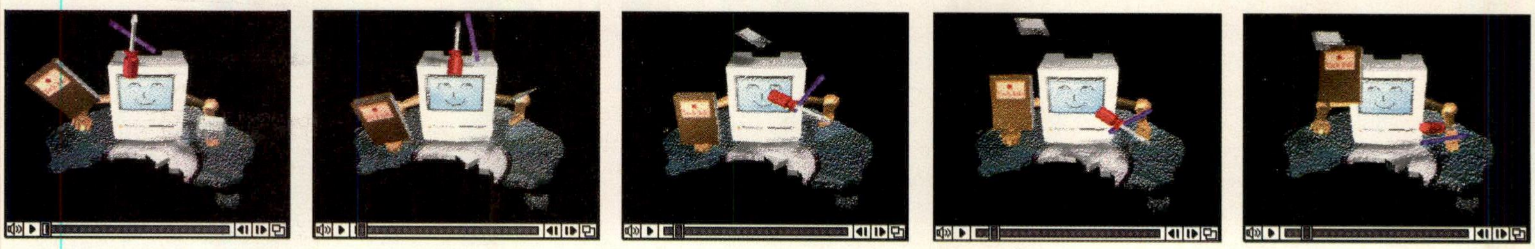
between them

The Art of Animation

QuickTime can also be used to run animation sequences with synchronised sound direct from hard disk. Individual frames in PICT file format can be imported into a package like *Adobe Premiere* and saved out as a movie. Frame rates up to 30 fps and better are supported, as are screen sizes of 640 x 480 pixels – the size of a 14-inch monitor.



and world-wide comms networks – err...no. Not for a long while, at any rate.

The main uses to which *QuickTime* will undoubtedly be put are firmly embedded in existing areas of video-graphics. As such we're talking budget off-line video editing – where producers can experiment with their footage – futuristic games and interactive point of sale and information systems. And not forgetting thoroughgoing Mac movies such as The Voyager Company's *Hard Day's Night* or, indeed, some of the less salubrious offerings from the US – namely porn films. But most of all we're talking desktop video... Niche Market City, and therefore very expensive.

Is DTV the new DTP?

Just as the Mac revolutionised publishing, many developers insist it's the perfect platform for developing video presentations. While products like *Hypercard* and *Supercard* made do-it-yourself interactive programming a practical possibility for non-programmers, their lack of true colour and video support have resulted in other companies taking the initiative.

Director and *MediaMaker* from Macromind, and *Premiere* from Adobe are fast becoming the pre-eminent tools for developing interactive presentations on any platform. But while *QuickTime* enables video to make it to the Mac, it's just one-way traffic – there's no way you can use it to produce full-screen videos that can be output to your home videotape recorder.

Maybe one day, say in *QuickTime* version 32.0, running on a RISC-based PowerPC with its Mac emulator, we might have sufficient processing power and cheap memory to use our machine as a desktop video suite, but at the moment the main use of the Mac in video is as a mere edit controller sitting between two video machines.

With the mchines connected by cables so that you can control their drive mechanisms from your Mac, software such as *VideoMachine* from FAST allows previewing of edits on the record machine of footage running on the source machine. You click the button on your Mac's screen and the cut is made – albeit with various optional additional special effects. It's a great way of saving money on expensive editing suites, it may well be the future, but it's not going to have the same effect on video as the Mac did on publishing.

Seven tips on making better QuickTime movies

1 Use a clean video source
The less video noise, the better compression and frame differencing you will get. So, digitize from the cleanest, highest quality video source possible. The most common video formats, in order of quality, are:

BetaCam
U-Matic/S-VHS/Hi-8
LaserDisc
VHS

Try to use the highest quality video format you can. Beware of tapes which have been duplicated many times or have been played a lot – they can be very noisy. Try to use material with constant backgrounds and solid colours. Lots of panning and zooming or complex background patterns will reduce your frame differencing and give lower-quality compression.

2 Use S-Video input
If your digitizing card supports S-Video inputs, use them. S-Video delivers better quality than composite video.

3 Adjust your levels
Many digitizing cards support black level, white level, brightness and contrast settings. You want to adjust the black level of your card so that black areas in your source digitize as truly black pixels.

4 Grab as big as you can
Digitize at a larger size than you need and scale down when you compress.

Many video cards do not do a good job scaling down frames when they grab, so it is better to capture at a large size before compressing.

5 Grab using JPEG if possible
If your software supports it, set JPEG to the highest quality and grab all your frames this way, which saves a lot of space on disk.

6 Capture sound at 22 kHz
This is the built-in Mac sound rate, and will give you the best quality sound.

7 Get the frame size right
The larger the frame size, the more pixels have to be updated every frame, so it is important to choose the right size. Choose either 160 x 120 or 240 x 180 pixel windows.

It's important that the frame size be a multiple of four in each dimension or *QuickTime's* decompressor will not function properly.

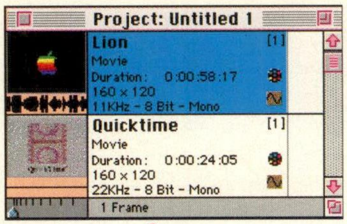
Premiere's empire

Adobe's *Premiere* is fast becoming the *de facto* high-end authoring tool for *QuickTime* – and it really is a neat bit of kit. The only problem is that you need at least 4Mb of RAM – 8-20Mb is recommended. A standard colour Apple monitor like those bundled with the LCII and Performa 400 works fine, but bear in mind that the software alone takes up nearly 9Mb of hard disk space. Adobe recommends at least 80Mb of storage space on hand because even with the tremendous compression ratios, *QuickTime* movies can still take up 5Mb for a minute of clip with one audio track. Of course, for full effect, you also need a video digitising board. And a Mac with a sound input socket, or you're out shopping for an audio digitiser!

All these aside, you're left with an extremely friendly program which makes it very easy to create, edit, play and output Mac movies.

A quick run down of its features includes:

- A sequence window which enables you to build long movies from smaller ones without additional compression.
- A title generator which incorporates *Adobe Type Manager* screen software
- The ability to import numbered sequences of PICTs, *Illustrator* and *PhotoShop* files
- Over 50 special effects and filters
- Motion control allowing you to create a path of movement for any movie or still image
- Support for images up to 2048 x 2048 pixels in size.
- A function to 'Print To Video' – in other words control direct taping.



Project: Untitled 1

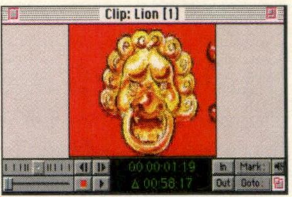
Lion [1]
Movie
Duration: 0:00:58:17
160 x 120
11KHz - 8 Bit - Mono

Quicktime [1]
Movie
Duration: 0:00:24:05
160 x 120
22KHz - 8 Bit - Mono

1 Frame

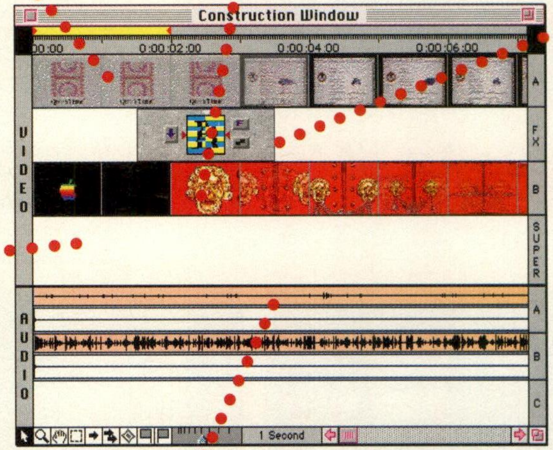
①

Video clips and audio samples are imported into the Project window before being dragged into the Construction window



④

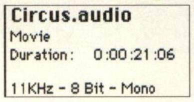
Any clip can be played and checked individually by clicking on its track



②

The Construction Window is a digital media studio, with 2 main video tracks, 2 special effects banks, for special effects and superimpositions, and three audio tracks

③



Circus.audio
Movie
Duration: 0:00:21:06
11KHz - 8 Bit - Mono

Additional audio clips can be added at any time in the construction – perhaps a little more background sound might improve the overall atmosphere...

············ In the meantime, the major advance on the video front as far as the Mac is concerned is that Quadras are now the hot purchase for producers wishing to generate titles and credits with presentation packages. These are output via four-figure high-resolution video boards direct into six-figure video post-production suites. But what can you do to get started yourself?

A QuickTime studio

1. Sourcing video images

First of all you need some means of obtaining a video source, and for most users this will be domestic camcorders and videotape recorders. Ideally you should choose one of the enhanced formats like S-VHS and Hi-8, or even try and pick up an old U-Matic deck made by Sony or JVC, because resolution is the key factor in making Mac movies.

Standard VHS produces only 300 lines per frame, while Hi-8 or S-VHS use 400 lines. Go for the best gear you can afford, because the higher the resolution the better job *QuickTime's* compressors will make of handling your footage.

2. Porting video into your Mac

Having secured a video source, you'll need to port the material into your Mac via a video digitising board. Here the options are vast and largely depend on the amount of dosh you have at your disposal. Prices for semi-pro boards start out at around £1,500 and go all the way up, but there are several budget digitisers on offer.

In future issues of **MacFormat** we'll be concentrating on these and suggesting tips and techniques you can use to obtain the best results. Suffice to say at present that SuperMac's VideoSpigot looks like one of the best options. At

Software supporting QuickTime movies

Photoshop, PageMaker 4.2, Canvas 3.0
Excel 4, Kid Pix, Word 5, Typestry,
WordPerfect 2.1, Morph, Persuasion 2.1

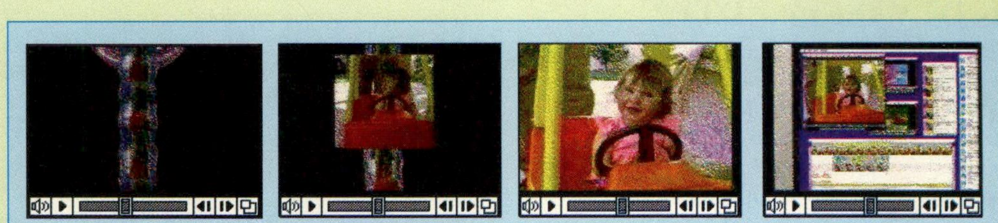
Jargon decompressed

So how does *QuickTime* do its stuff? How does it manage to squeeze a PICT file down to as little as a tenth of its original size without visible loss in quality? How can it perform compression on 24-bit moving images by as much as 25:1?

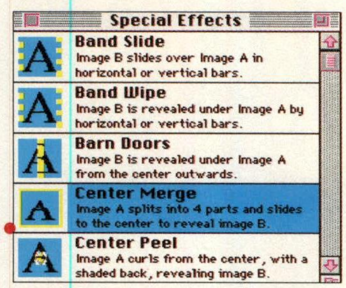
It actually uses two different processes to compress still and moving images. The Apple Photo Processor handles still images. It works by examining an image line by line and assigning a value for each pixel it comes across. If it encounters a pixel of the same colour characteristics it has already scanned it merely notes its position and adds it to the colour index.

Any image will include many of these areas of 'redundancy' and, as such, can be stripped of much of their original information. The resultant index is output as code – decompression is just a question of reassigning colour information to each 'redundancy'. If the compression ratio is set to high, the sampling rate will be poor – blurriness, blockiness and jagged lines may all occur due to insufficient pixel data.

Moving image compression is managed by Apple's Video Compressor. This works in a similar way except that processing also accounts for the differences between frames comprising a moving sequence. This process is known as frame differencing. The AVC looks for frames that have changed more than 90 per cent from the previous frame in time and assigns a 'keyframe'. Typically a keyframe is inserted every ten images in any case to assist in rapid retrieval of frames while editing



QuickTime uses Frame Differencing to compress sequences – the one above lends itself well to compression since the black areas in the first half of the sequence can easily be described. The girl is more complex but only her relative size is changing



Special Effects

Band Slide
Image B slides over Image A in horizontal or vertical bars.

Band Wipe
Image B is revealed under Image A by horizontal or vertical bars.

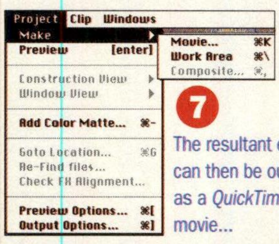
Barn Doors
Image B is revealed under Image A from the center outwards.

Center Merge
Image A splits into 4 parts and slides to the center to reveal image B.

Center Peel
Image A curls from the center, with a shaded back, revealing image B.

5 Special effects can be slotted in between video tracks....

6 ...and previewed in action before they're committed to the edit



7 The resultant edit can then be output as a *QuickTime* movie...

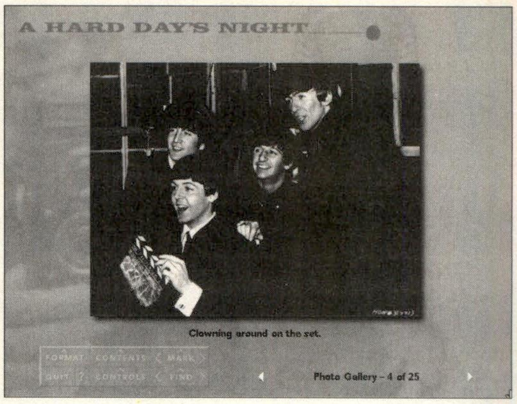
8 ...and finally replayed in *Premiere* or any *QuickTime*-compatible program

Buy up that copyright now!

The Voyager Company, a leading US-based publisher of CD-ROMs, laserdiscs and 'expanded books', is shortly to release the first feature-length back-catalogue *QuickTime* movie on CD for the Mac.

The Beatles' *A Hard Day's Night*, directed by Richard Lester, runs under *QuickTime 1.5* and includes the Fab Four frolicking about in a format even Lennon would never have imagined way back in '64.

Combined with an interview with the director, a critical essay and stills photographs, the mop-top micro movie should be out by next issue.



Clowning around on the set.

Fast QuickTime facts

1. ***QuickTime* 1.5 delivers software-only compression video windows up to 320 x 240 pixels in size**
2. **Movies can be played back from CD-ROM – meaning that films of up to 70 minutes in length can be stored and distributed on one medium**
3. **Movies can run over Ethernet networks running AppleShare 3 – your systems manager will be appalled as the arteries clog up...**
4. ***QuickTime* supports Kodak's Photo CD standard so that you can transfer all your stills to Photo CD and view them via the new Apple CD300 players**
5. ***QuickTime* movies run on PowerBooks via a special dithering mode which provides the same frame rate playback of high-resolution movies on 1-bit screens.**
6. **Besides editing moving images and sounds to run together, you can include moving text displays such as titles and captions in your movies**

£468 it's the cheapest means of digitising video into your Mac and is fine as long as you've 4Mb of RAM, an LC or a spare NuBus slot and 470 reasons to want to make Mac movies. Version 1.0 of *Adobe Premiere*, the excellent *QuickTime* movie creation software, comes bundled with VideoSpigot (except the LC version). Since *Premiere* is worth £495, it's got to be worth it.

3. Editing video on your Mac

The *QuickTime* starter kit available from Apple dealers for £117 is perhaps the most inexpensive means of viewing and editing movies. Its Movieplayer module offers viewing and editing of both video and audio files on a frame by frame basis, while Movie Recorder enables you to control a video capture card and sequence clips. Along with Movie Converter, which lets you convert still images into movies, and Picture Compressor, a means of compacting PICT image files into a fraction of their orginal size, the Starter kit is a straightforward easy-to-use introductory tool. More sophisticated software like *Premiere* and *Mediamaker* afford much greater control and introduce a wide range of video effects such as wipes, fades and dissolves.

But the most inexpensive of them all is Aladdin System's *Popcorn* – which is free. Although it's unable to provide a facility to create movies from scratch, it does enable viewing and rudimentary editing of single frame images.

4. Porting movies to videotape

Once you've created a *QuickTime* movie you have two choices as to how you wish to subsequently view it. You can leave it in digital format as a file on your hard disk, or you can output to a video recorder. If you opt for the latter, after bearing in mind that the resulting footage will only be, at best, a couple of inches square, you'll need a video output board. The cheapest option here is Neutral's £233 Venice 640 TV video out card which allows users to play back 24-bit images on both televisions and RGB monitors. Also worth a look are Computers Unlimited's Colour Video Encoder at £346 and Creative Licence's TV Board at £410 and VideoMax for £428. Each needs a NuBus slot, so Classic, LC and Performa 200 users require other solutions.

At this point many of you will be thinking what is the point? And you're right. Because it's worth remembering *QuickTime* isn't a video mastering system – it's just an extension to your operating system that'll enable various software to include rather small and mostly grainy footage.

But it's still fun. And what's more, with any of the above boards you can output your entire Mac screen area in any case – frame by frame if necessary. **mf**

the material. Between keyframes, the AVC interprets all the remaining frames as 'delta' frames. These are described only by the changes between the current frame they represent and the one which precedes it. As such, all that's being looked for are the differences between frames — large differences for keyframes and small ones for deltas frames.

Clearly, compression involves some very complex maths – we're actually talking discrete cosign transforms, as it happens. But whether you're a mathematician or not, it's still useful to know the theory involved so you can achieve better results.

As can be seen, choosing well-lit material with good contrast helps, as do sequences involving little rapid movement. And obviously black and white footage will compress more easily!

Where to get it ▼

	Available from	Phone no	Price
Hardware			
VideoSpigot NuBus/LC	**Principal**	**0706 831831**	**£468/£306**
Venice 640 TV card	**Neutral**	**081 599 9902**	**£233**
Colour video encoder	**Computers Unlimited**	**081 200 8282**	**£346**
TV board/VideoMax	**Creative Licence**	**071 379 1464**	**£410/£428**
Software			
QuickTime Starter Kit	**Principal**	**0706 831831**	**£117**
MediaMaker	**Computers Unlimited**	**081 200 8282**	**£676**
WordPerfect 2.1	**WordPerfect**	**0932 850500**	**£234**
Adobe Premiere	**Principal**	**0706 831831**	**£582**

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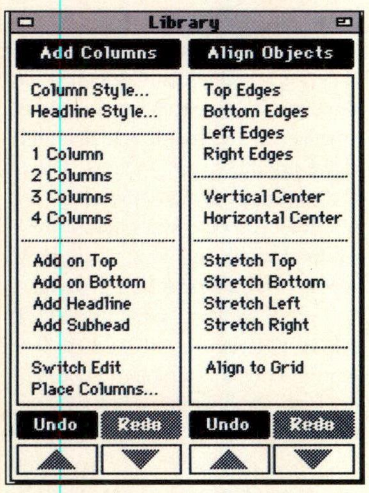
Future PUBLISHING

Your guarantee of value

A complete desktop publishing package for just £147? Stuart Anderton tests Timeworks' *PUBLISH-IT! Easy* and finds it can do more than DTP...

Professional DTP for under £150

Desktop publishing is considered by many the raison d'être of the Macintosh. It was the release of Aldus *PageMaker* back in 1985 which started the ball rolling, both for the concept of page layout on a personal computer and for the Mac itself. Since then, there has never been any shortage of DTP software available, but the two big guns don't come cheap. Both *PageMaker* (now on to version 5) and its big rival *Quark XPress* have a recommended retail price of almost £800.

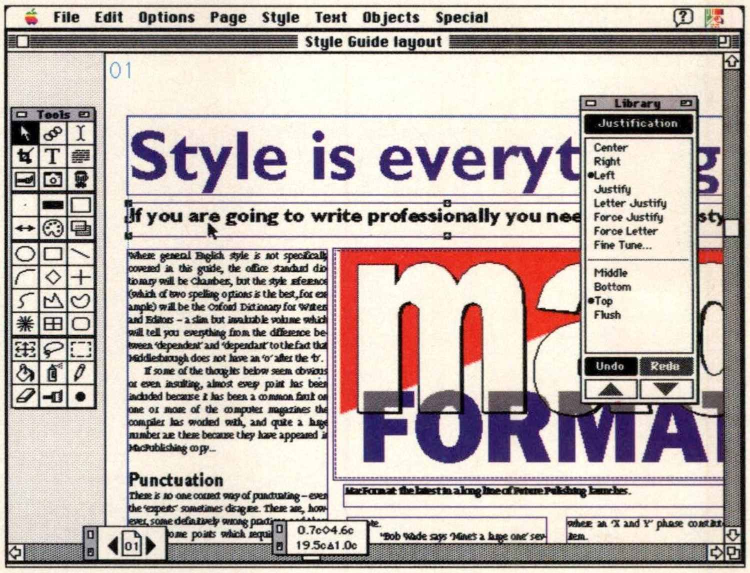


Library
Add Columns
Column Style...
Headline Style...
1 Column
2 Columns
3 Columns
4 Columns
Add on Top
Add on Bottom
Add Headline
Add Subhead
Switch Edit
Place Columns...
Undo
Redo
Align Objects
Top Edges
Bottom Edges
Left Edges
Right Edges
Vertical Center
Horizontal Center
Stretch Top
Stretch Bottom
Stretch Left
Stretch Right
Align to Grid
Undo
Redo

You don't need menus: the floating **Library** palette speeds things up and aids learning

Clearly there is a market for substantially cheaper DTP software, and both Aldus and Quark released programs – *Personal Press* and *Quark Style* respectively – which attempted to fill this gap at around the £200 mark. But these aren't alone. On the Atari ST there is one really big name in budget DTP – *Timeworks* – and it has a Mac offering which at first sight looks too good to be true: *PUBLISH-IT! Easy*, costing just £147.

With a price tag less than many utilities, you don't open *PUBLISH-IT! Easy's* box with high hopes. But *PUBLISH-IT! Easy* not only often matches *Quark XPress* and *PageMaker* feature for feature, it can actually do a whole lot more than either of those programs.



File
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Options
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Style Guide layout
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Tools
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Justification
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Justify
Letter Justify
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Force Letter
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Undo
Redo
Style is everyt
If you are going to write professionally you nee
Punctuation
FORMAT
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PUBLISH-IT! *Easy* offers a full range of desktop publishing features at an extraordinary price

What can it do?

The basic function of any DTP program is to allow you to arrange text of various typefaces and sizes and combine it with graphics on the page. In *PageMaker* the method is like using a 'pasteboard' – text and graphics are imported and appear on-screen on the sides of the page, to be re-shaped, re-sized and moved around to form the design. In *XPress* you create the design first by arranging empty boxes or 'frames'. Particular frames are designated as containing text or graphics, which are then imported into the corresponding frames to form the design.

PUBLISH-IT! Easy combines elements of the two approaches. Text is 'poured' into pre-defined

Advanced features

PUBLISH-IT! Easy has too many features to list, but these are some of the more interesting or useful.

Easy gives you full typographic control over the text, including exact text size to 0.01 of a point and kerning control to the same resolution. Type can be expanded and condensed, and text can be rotated in one-degree increments. Here *Easy* compromises by not allowing text to be edited when rotated; instead the text is returned to normal and when the editing is done it is automatically put back. Graphics can be rotated too.

Easy gives you control over the position of the baseline of text, and full justification control allows the degree of raggedness to be altered. Vertical justification is also possible.

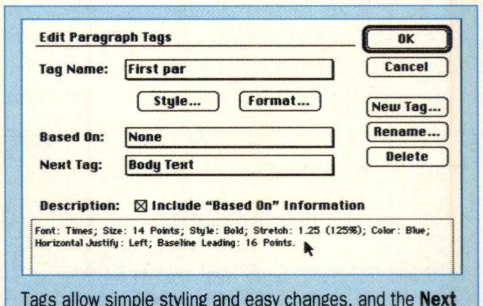
Style sheets (called 'tags') allow full definition of features, and a 'next tag' feature allows text which is being typed in to be automatically formatted – for instance if you type a crosshead and set its style, you can set it up so that the next line you type is in body copy. Stylesheets can be imported from most word-processed documents.

Text can be imported from most word processors, and graphics in most common formats. The resolution of bitmapped graphics can be adjusted on import to match your printer.

A nice feature is the option to print pages two-up sideways on a piece of paper. *Easy* prints the pages in the correct order so that folding them in half and stapling them creates a magazine.

If you exchange documents among people who have different fonts, then *Easy's* **Font Substitution** option allows you to change fonts wholesale from ones you don't have to ones you do.

Easy can automatically insert 'continued on..' lines, as well as dates, times and page numbers. Information from *Easy's* built-in database, *File-It!*, can be incorporated into a document and updated.



Edit Paragraph Tags
OK
Cancel
Style...
Format...
New Tag...
Rename...
Delete

Tag Name: First par

Based On: None

Next Tag: Body Text

Description: ☒ Include "Based On" Information

Font: Times; Size: 14 Points; Style: Bold; Stretch: 1.25 (125%); Color: Blue; Horizontal Justify: Left; Baseline Leading: 16 Points.

Tags allow simple styling and easy changes, and the **Next Tag** feature is a boon when you're typing text in directly

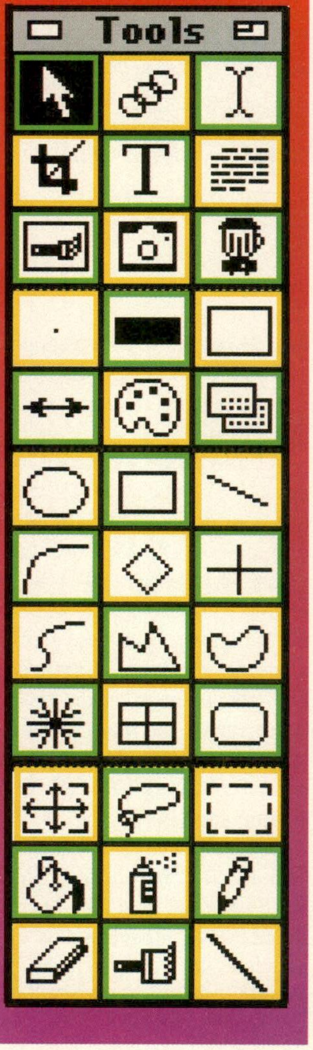
As well as rotating graphics, *Easy* can also reflect them horizontally and vertically.– a feature the more expensive packages amazingly lack.

If you like getting your hands dirty, you can type raw PostScript commands into a graphics box and *Easy* will attempt to print them for you. However, this is not recommended for beginners!

Give us the tools and we'll finish the job

A glance at the range of tools in Easy's toolbox shows the number of features this program has

- **Pointer tool:** for selecting and moving objects around the document
- **Text linking tool:** join text frames so a story flows from one to the next
- **Text insertion tool:** for selecting, adding and editing text in a text frame
- **Cropping tool:** to adjust graphics so only the required portion is displayed
- **Bitmap frame tool:** create a frame for importing or drawing bitmapped graphics
- **Paragraph selection tool:** highlights entire paragraph for adding tags or styles
- **Blend with bitmap tool:** combine text and underlying bitmap, to annotate pictures
- **Graphic conversion tool:** converts a graphic object or text into an editable bitmap
- **Text frame tool:** to create frames which can be used for typing or importing text
- **Pen pattern tool:** selects the pattern or shade for the lines of objects or frames
- **Pen size tool:** selects the width of line for graphic objects or text frames
- **Fill pattern tool:** selects fill pattern or shade of grey for shapes and text frames
- **Arrowhead tool:** selects the line end shape for lines drawn with the line tools
- **Colour palette tool:** select colour of object from seven definable spot colours
- **Frame overlap tool:** allows overlapping frames to be transparent or opaque
- **Oval tool:** lets you draw ovals and circles
- **Rectangle tool:** lets you draw rectangles and squares
- **Line tool:** to draw straight lines. Holding [shift] forces them to be perpendicular
- **Arc tool:** lets you draw portions of ovals and circles
- **Diamond tool:** lets you draw diamonds (You guessed that didn't you!)
- **Perpendicular line tool:** as Line tool, but saves you holding down [shift]
- **French curve tool:** lets you draw three straight lines then blends them to form a curve
- **Polyline tool:** for drawing irregular open and closed shapes using straight lines
- **Freehand tool:** lets you draw any squiggles you like
- **Radial spokes tool:** draws spokes like a bicycle wheel. No idea what it's useful for
- **Grid tool:** lets you draw a grid for the accurate alignment of objects
- **Rounded rectangle tool:** draws rectangles with rounded corners
- **Graphics cropping tool:** positions a bitmap within its frame
- **Lasso tool:** allows you to select an irregular part of a bitmap
- **Region marquee:** allows you to select a rectangular area of a bitmap
- **Flood fill tool:** fills an area of a bitmap with the defined pattern
- **Spray can tool:** gives an aerosol painting effect
- **Pencil tool:** for drawing one-pixel wide lines in a bitmap
- **Eraser tool:** for rubbing out parts of a bitmap
- **Paintbrush tool:** for painting a bitmap with the currently set brush width and shape
- **Brush size tool:** selects the paintbrush's width and shape



text frames as in *XPress*, while graphics are imported full size, and must be moved and scaled to fit, à la *PageMaker*. This is a very sensible compromise – you almost always know exactly where the text is to go, so pre-defined frames are useful, while graphics are rarely the right size when you import them, so seeing the full image for cropping and scaling saves time over re-sizing a pre-fixed frame.

Once the text and graphics are on the page they can be moved about, re-sized and re-shaped in any way you please. Text can be set in any font you have installed in your Mac, and pictures can be in bitmap (*MacPaint* or TIFF), draw (PICT) or PostScript (EPS) formats. Any Chooser-compatible printer can be used. In addition to these basics, there are plenty of useful and powerful extra features – see the box on page 55.

PUBLISH-IT! Easy is also as simple to use as its name promises. One particularly helpful innovation is the **Libraries** palette, a floating palette containing all the commands relevant to the activity you are doing, saving you digging around in menus and dialogue boxes. For instance when you are designing your page there is a **Columns** library which lets you choose the number of columns on the page. Click once for three columns, and three text boxes appear in the expected places, click **Headline** and a three-column wide text box appears at the top. Click **Subhead** and a box for an introduction paragraph appears. Simple layouts really couldn't be easier to produce. The various parts of the page even default to sensible fonts and sizes.

Easy makes extensive use of other floating palettes too, including ones for switching pages, one for the measurements of an object (which even tells you the time!) and two different toolboxes.

Making changes

Naturally, *Easy* provides all the text editing features you would expect from a decent word processor, including a search and replace function which can look for colour or horizontal scale as well as the more conventional attributes. The only weakness of the search function – and it is a major one – is the inability to search for characters such as tab and return, which could make tidying up text tedious. There is a spelling checker which can check as you type and offers some useful options, including ignoring words in a particular font or style.

A nice addition to the usual DTP fare is a thesaurus with a 240,000 word dictionary, although I could not make it show antonyms, which the manual assured me it could.

Where *PUBLISH-IT! Easy* really stands out, however, is in the graphics area. It includes a set of basic but useful graphics tools, both for creating draw-type images with lines, circles and rectangles and for dealing with bitmap images with paintbrushes and erasers.

Drawn images can include

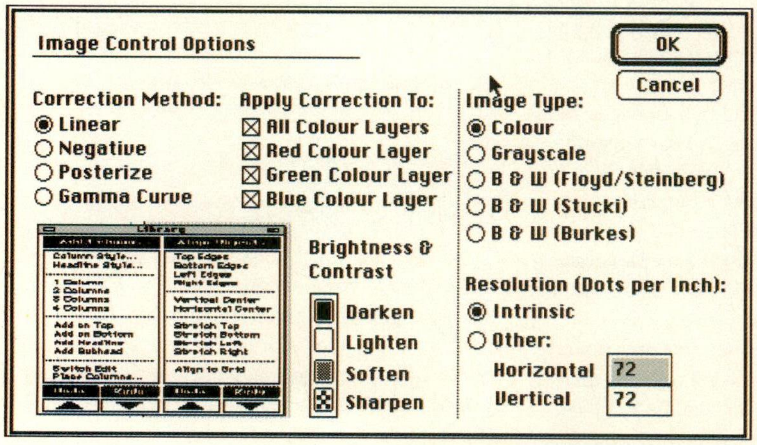


Image Control Options

Correction Method:
● Linear
○ Negative
○ Posterize
○ Gamma Curve

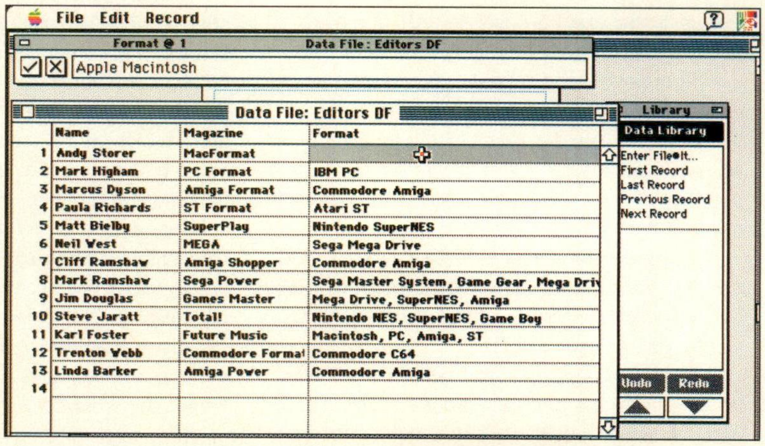
Apply Correction To:
☒ All Colour Layers
☒ Red Colour Layer
☒ Green Colour Layer
☒ Blue Colour Layer

Brightness & Contrast

Image Type:
● Colour
○ Grayscale
○ B & W (Floyd/Steinberg)
○ B & W (Stucki)
○ B & W (Burkes)

Resolution (Dots per Inch):
● Intrinsic
○ Other:
Horizontal 72
Vertical 72

Easy offers basic controls over scanned images – good enough for laser printer output



Format @ 1 Data File: Editors DF

☑ ☒ Apple Macintosh

Data File: Editors DF

	Name	Magazine	Format
1	Andy Storer	MacFormat	
2	Mark Higham	PC Format	IBM PC
3	Marcus Dyson	Amiga Format	Commodore Amiga
4	Paula Richards	ST Format	Atari ST
5	Matt Bielby	SuperPlay	Nintendo SuperNES
6	Neil West	MEGA	Sega Mega Drive
7	Cliff Ramshaw	Amiga Shopper	Commodore Amiga
8	Mark Ramshaw	Sega Power	Sega Master System, Game Gear, Mega Dri
9	Jim Douglas	Games Master	Mega Drive, SuperNES, Amiga
10	Steve Jaratt	Total!	Nintendo NES, SuperNES, Game Boy
11	Karl Foster	Future Music	Macintosh, PC, Amiga, ST
12	Trenton Webb	Commodore Format	Commodore C64
13	Linda Barker	Amiga Power	Commodore Amiga
14			

File-It!, a fully integrated database, makes customising documents a cinch french curves (averages of three lines) but unfortunately not Béziers. Another option is to draw radial lines, like spokes of a wheel, but this is of strictly limited usefulness. Painted images can be created using a brush, an airbrush and fill functions. Overall the graphics sections offer about as much as the original *MacDraw* and *MacPaint*.

You can also convert text into a bitmap and incorporate it into a graphic, or take a PICT graphic and reverse the process so that text can be edited even when it's in a graphic. You'd be unlikely to make extensive use of either, but there is always that odd occasion where being able to edit the text in a graphic could save your life.

You can perform some basic contrast and sharpness editing on imported scanned graphics using the **Image Control** dialogue. This is not at all sophisticated, but will suffice for most uses. It can also convert colour images to greyscale, and greyscale to black and white, or alter the resolution of images.

A desktop publishing glossary

Baseline: the imaginary line under the base of a letter on which all letters in a line sit

Bézier: a way of drawing a curve which can be edited by moving only a few points

Bitmap: a graphic made up of dots or 'pixels'

Cropping: choosing the area of a graphic which is to print

Desktop publishing: creating pages on screen with a computer

Draw-type graphic: a graphic containing objects like lines and circles, rather than just dots (cf. bitmap)

DTP: abbreviation for desktop publishing

Fades: transformation from one screen to another a bit at a time

Font: a typeface, traditionally of a particular size and style but in Mac terms often meaning the general typeface

Frames: boxes into which text and graphics are put on the page

French Curves: curves defined as the average of three straight lines

Graphics: pictures drawn in *Easy* or imported

Greyscale: a picture with several shades of grey

Horizontal Scale: compressing or expanding text to get special effects

Imported: taken from a file created by another program

Justification: making the edges of a column of text line up

Kerning: the spacing between two letters; needs adjusting for headlines

MacDraw: a program for creating draw-type graphics (qv)

MacPaint: a program for creating bitmap graphics (qv)

Mail Merging: customising letters with names and addresses from a database

Pasteboard: the area around the page – can be used for storing or assembling objects

PICT: technical term for a draw-type graphic; confusingly can also be used for bitmap graphics

Point: unit of measurement about 1/72nd of an inch long

PostScript: way of describing a page to a printer

Process Colour: technique for printing full colour pictures

Resolution: number of dots per inch in a graphic; 72 on the Mac screen

Scaling: altering the size of an object by enlarging or reducing its contents

Separations: separate printouts for each colour in a document; required for a printer to create a colour page

Spot Colour: colours other than those used in graphics or photographs; cheaper to print than process colours

Stories: piece of continuous text flowing from frame to frame

Style: a text attribute like bold or italic

Style Sheets: set of attributes which can be applied to a paragraph in one go; can later be edited to allow global changes

TIFF: file format for bitmapped graphics

Typefaces: kinds of type such as Times or Chicago

Vertical Justification: spacing out text vertically to fill a given space

Wipes: a way of moving from one slide to another gradually

Add-ons

Like *XPress' XTensions* and latterly *PageMaker's Additions*, *Easy's* "Factors" enable you to add more functions to the main program just by dropping a file in the appropriate folder. A number of the facilities I have described are in fact added as Factors, including the thesaurus, the ability to break PICTs into their constituents, and the bitmap image controls. But the best of the Factors which are supplied as standard is called *File-It!*

As you might guess, *File-It!* is a database, and quite a good one too. It isn't designed to replace *FileMaker Pro*, but it is integrated with *Easy* to such an extent that the data in it can be used to create custom documents very easily. Mail merging is only the beginning of it; *File-It!* allows for sophisticated questions and calculations and provides a user-friendly interface to create the formulae to do it. (We'll gloss over the fact that this interface is called 'Mr Formulae'.) Using these formulae you can get a letter to automatically change from 'yours sincerely' to 'yours faithfully' depending on whether you have a contact name, or default to 'Dear Mr Smith' if the first name isn't in the database, but 'Dear Mark' if it is.

Easy's integrated features don't stop there. Not content with word processing, page layout, paint and draw graphics and a database, it also incorporates a presentations section – basic, but perfectly functional. This includes a **Mac screen** option in the page layout dialogue, and pages can be created as slides just as if they were for printout. You then run the slideshow to show one page after another, moving between them either on a mouse-click or by timer. Various simple wipes and fades are available to liven things up.

Easy does one hell of a lot for your £147, then, but there are some things it can't do. One is colour separation. *Easy* can handle spot colours fine; it allows up to seven in a document, plus a special non-printing colour which lets you add comments. But it cannot produce the process colour separations needed for full-colour work. The other area in which the 'big boys', in particular *PageMaker*, score over *Easy* is in table of contents, index and multi-document book facilities. These aren't real problems, though: if your work is sophisticated enough to need those facilities, you can probably afford them.

PUBLISH-IT! Easy is a thoroughly remarkable piece of software. It has all the features you'd expect from a professional DTP package, plus additional word processing and graphics abilities, and a built-in database and presentations package.

Everybody needs to produce a smart-looking document, poster, leaflet or advert from time to time. *PUBLISH-IT! Easy* gives you all the facilities you need and more. For all but very high level professional colour work, *Easy* is by far the best value DTP package around. **mf**

Where to get it

***PUBLISH-IT! Easy* costs £147 and is distributed in the UK by Softline (081 642 2255). It is available from most Apple dealers and mail order outlets. Timeworks in the States is on 0101 708 559 1300.**

PUBLISH-IT! Easy	
Ease of use	85%
Value for money	98%
Features	90%
Documentation	80%
Speed	70%
Overall rating	92%

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OKI OL830	£1050
OKI OL850	£1250
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HP Scanjet II P 8 Bit Greyscale	£ 589
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Microtek Scanmaker II XE inc Photoshop	£ 975
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Design counsel

To kick off the MacFormat series on design, Martyn Lester gives a guided tour of some of the rudiments of typography

Almost all Macintosh owners use their machines to design publications of one sort or another, although they don't necessarily think about what they're doing in precisely those terms.

The simplest of letters written with your word processing software is, in some senses, a designed publication. Even if you make no adjustments to the settings offered when you begin to type into your new document, you are in effect taking a design decision – that of settling for the default style.

Over the coming months, this section of **MacFormat** will be tackling a wide range of design-related topics. The approach we intend to take is a very practical one – top tips and expert advice showing you how to achieve a variety of objectives from improving the look of your correspondence through to designing complicated forms, reports, posters and even magazine and newsletter pages.

This month, however, we're going to take a rather more theoretical approach and delve into the world of typography.

The design revolution

The Macintosh (with more than a little help from PostScript fonts) played a leading role in the desktop publishing revolution of the 1980s; and desktop publishing, in its turn, has revolutionised working practices for the designer.

Until a few years ago, the designer was largely shielded from the nitty gritty of type by the typographer and typesetter or compositor. But powerful DTP (and other) software has passed control over type to the user, so that the specialist typesetting house has ceased to be a vital link in the chain that leads to a printed page. The graphic designer is these days expected to closely involve him or herself in the application and composition of type, and perhaps even design (or at least mutate) typefaces.

However, for one reason or another, very few of us have received even the most basic training in typography – this is particularly true of writers and editors who have become desktop designers by default – and because of this we have not always met the challenge posed by desktop publishing particularly successfully.

Using type is a craft skill that needs to be learned – it can't simply be left to the software to sort out for itself. As the respected typographer, designer and font supplier Erik Spiekermann puts it: 'People are greeted by all these menus on the Mac. Either they leave the specifications of type alone and turn out the regular sort of stuff that is delivered by *PageMaker* and *XPress* – which is usually so-so – or they suddenly realise that there is a lot more to it than they had imagined.

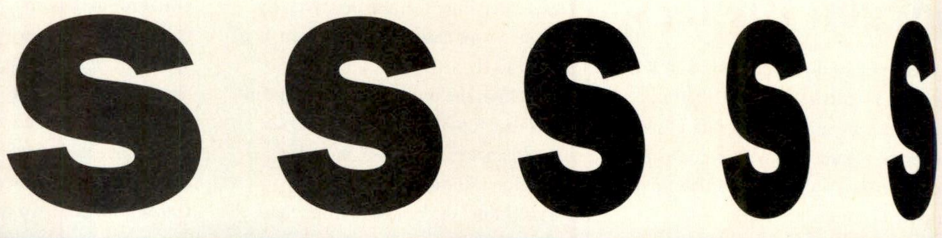
'They thought that all you do is go to the printer or typesetter, but it's not as easy as that. It's the difference between going to a restaurant for a meal or going to a shop, buying something, taking it home and cooking it yourself. First of all you have to buy all the ingredients, which is difficult enough, and then mix them up, which is difficult again. Then they have to be stirred up and fried, which is again difficult. Then the table has to be laid... all these qualifications have to be put into one person.'

Before the advent of DTP packages and versatile word processors, it pretty well went without saying that the raw material of typography was type. These days, it's a statement that is more likely to confuse than enlighten, because the word 'type' rarely appears on your monitor screen or even in your software manuals. On the Macintosh, everyone talks in terms of 'fonts'.

Font memories

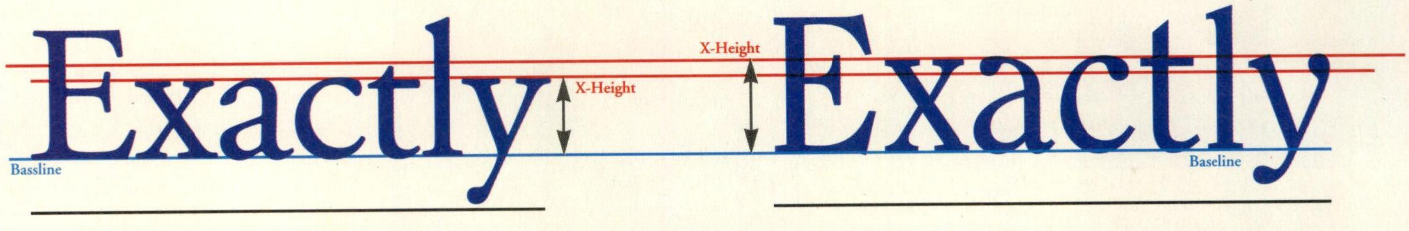
In traditional typography and composition, a font (originally 'fount') was, strictly speaking, just one size of one variant of a particular design of type – 12-point Times Bold, for example. Any other size and/or variant (such as Medium Italic) was regarded as a different font. All the permutations of sizes and variants were known collectively as the 'typeface' or 'typeface family'. These meanings have not yet fallen out of use entirely, and if you're talking to an old publishing hand

Software scaling, and the battle of the bulge



DTP and word processing programs which offer to condense text (sometimes called 'scaling') are not producing a true condensed face, but merely distorting the normal face. Horizontal strokes remain the same, but verticals become thinner, and curves begin to bulge oddly.

The examples above are set in Franklin Gothic Heavy at 100 (normal), 85, 65, 45 and 25 per cent scaling using Quark *XPress*. Note how the S develops an increasingly ugly bulge. Try to avoid condensing or expanding type by more that 20 per cent of its true width – i.e. beyond 80/120 per cent scaling.



The point size of a font is only a vague guide to how large it will look on the page. Other factors in the type metrics, particularly the x-height (see Jargon Busters below), can make fonts of the same size appear quite different to each other. Both of the samples above are set in exactly the same size – 72pt. If anything, the Garamond (left) has the larger ascender-descender distance and the least body clearance – see the 10pt samples on the facing page to see how close the top line's descenders are to the ascenders of the line below. Yet it is the Clearface (right) with its larger x-height that appears to be the bigger of the two samples.

it's worth watching out for potential misunderstandings and ambiguities.

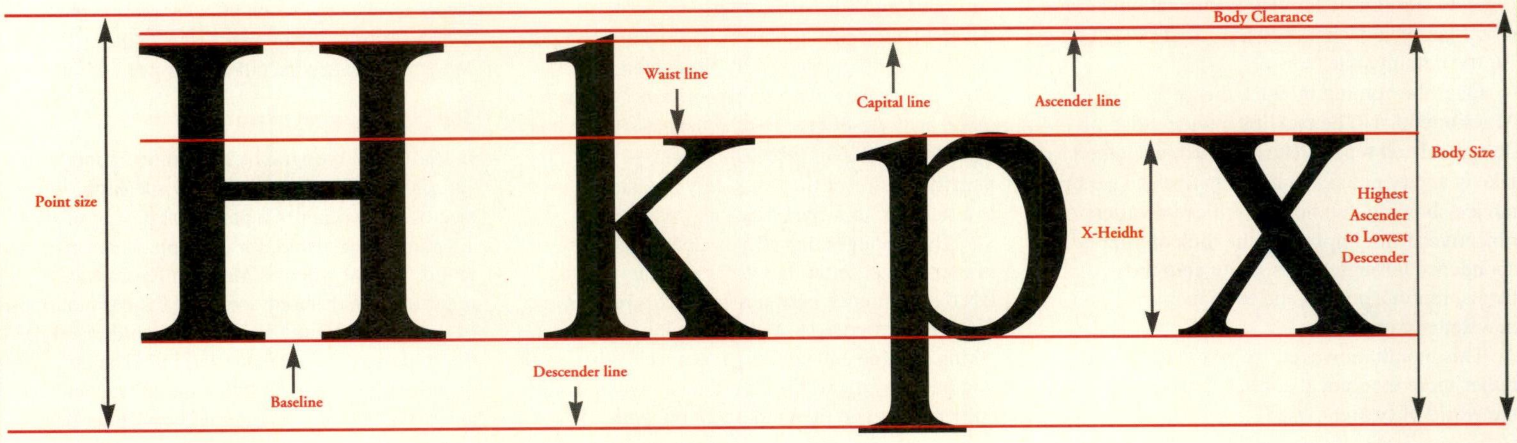
These days, on a Macintosh, the word 'font' implies all sizes of type (within any limitations imposed by your software) and, particularly where TrueType fonts are involved, it can also imply a restricted family of variants on the basic style – when you buy a named font, it will often contain the data required to output italic, bold and bold italic versions too. This is not always the case, as some quirky or decorative fonts don't need to have variants incorporated into them – there's no point, for example, in having an italic version of a script or copperplate font that was designed with an italic-style slant in the first place.

Sometimes, though, suppliers will also describe each variant as a font in its own right. For example, System 7 may be claimed to come with 21 TrueType fonts packaged into it – what this actually means is that as well as a symbol font, there are variants of Times, Helvetica, Chicago, New York and Geneva. So when you're buying new fonts, it pays to clarify what the supplier means by a 'font' before deciding whether it's a good deal or not.

As well as variants that are built into a font or mini-family, others are often accessible via Text or Style menus or sub-menus. It is standard for packages to offer Underline, Strike Thru, Outline and Shadow options; some other possibilities are Word Underline, Double Underline, Small Caps, Condensed and Extended – the last two are sometimes buried deeper than the Style menu, and may be achieved by going through a dialogue called something like Horizontal Scaling.

Unlike bold and italic variants, these other options are not part of the intrinsic font information, but are extrapolated on the Mac itself. So software which says that it can condense, extend or scale a font is not offering a true condensed or extended font, but merely distorting the normal font for you. Depending on how much you want to alter the font – and which font it is – this can produce quite reasonable type, but the only way to get genuine condensed Helvetica (for example) is to buy a properly designed Helvetica Condensed font.

The other type variable that is standardly available in Mac software is size. This sounds the most self-evident of the lot, but is actually rather more complicated than most people imagine. To begin with the simple (if arguably silly) stuff, type size is a measure of height/depth, and in the



Jargon Busters

The metrics of type – the way that it is measured – carries a jargon all of its own. Here are the meanings of a few of the terms commonly used in describing type metrics – and there's a diagram to help make it clearer still

Baseline: the imaginary line on which the bottom of characters such as A, m and x sit. Descenders, and sometimes part of capitals J and Q, hang below it

Descender line: the line on which the stem of lower case characters such as p appear to sit

Waist line: the imaginary line that runs across the top of ascender-free lower case characters such as o, m and x. Sometimes known as the x-line

Capital line: the imaginary line that runs across the top of capital (also known as upper case) letters

Ascender line: the imaginary line that runs across the top of the stems of tall lower case letters such as b, d and k

x-height: the distance between the baseline and the waist line. This is the measurement which has most effect on the visual appearance of size in a typeface. Quite often also used as the height for the small capitals used for abbreviations, as in WYSIWYG

Capital height (cap height): the distance between the baseline and the capital line.

k-p distance: the distance between the top of a lower case k and the bottom of a lower case p; only useful if these represent the highest ascender and lowest descender, which they usually do.

Body clearance: what remains after the highest ascender to lowest descender distance is subtracted from the point size. Therefore, a small amount of clear space between two lines of type, varying between typefaces according to the wishes of the designer.

Body size: the same as the point size; the distance between the top of the highest ascender and the lowest descender, plus the body clearance.

For fair comparison, both this type sample and the one to the right of it have been set, using Quark *XPress*, in the same point size (10pt) across the same measure and are set solid – there is no extra leading space inserted between the lines. Although they are theoretically the same size, the metrics of the two fonts are quite different, and the Clearface Regular on the right, with its large x-height, looks somewhat bigger than the Adobe Garamond on the left.

For fair comparison, both this type sample and the one to the left of it have been set, using Quark *XPress*, in the same point size (10pt) across the same measure and are set solid – there is no extra leading space inserted between the lines. Although they are theoretically the same size, the metrics of the two fonts are quite different, and the Clearface Regular on the right, with its large x-height, looks somewhat bigger than the Adobe Garamond on the left.

UK and US is measured in a traditional unit called a 'point', which is so close to 1/72 of an inch (0.353mm) that it is usually treated as such in DTP (originally, it was 1/72.27 or 0.013837 inches, 0.3515mm). So 72pt type is, roughly speaking, 1 inch tall. However, like just about anything to do with print, it's not quite that easy.

X-rated features

Although the point size is sometimes, in practice, a measurement of the distance between the tops of ascenders (the tall stems on characters such as 'k') and the bottoms of descenders (the tails on characters such as 'p') it does also incorporate something known as body clearance, which is any space that the type designer intended there to be between the descenders of one line and the ascenders of the next in solid-set copy.

And even two fonts with the same point size and same ascender to descender distance (also known as k-p distance) may not appear to be anything like the same size. This is because the impression of size in a typeface is largely produced not by the capital height or k-p distance, but by the proportion of its point size taken up by the ascender-free lowercase characters; this is known as the x-height. It is dangerous to assume that using 10pt type in one font will have identical implications to using 10pt in a dissimilar font – one may look considerably bigger than the other, and fit fewer characters into a given page or column width (see above).

The other standard control over type (although not offered by the most basic word processors) is leading (pronounced 'ledding'). This refers to inter-line spacing, and the word comes from traditional metal typesetting, where thin strips of lead were inserted between rows of type. This may be specified as just the extra space between rows of text , but more usually is given as the full distance in points between the baselines of the two rows – so '10 on 12pt' means 10pt text with two extra points of leading.

Software packages often offer to apply default 'auto' leading to any text, and this will usually be a fixed proportion of the point size of the type. This can be more or less useful for anyone who wouldn't trust themselves to choose the best leading on their own, but is rarely the ideal amount – it tends to produce that 'regular, so-so' kind of work that Erik Spiekermann refers to.

The ideal leading for a section of type will depend on more than the point size of the text. How condensed or expanded the type is, and how light or dark, may also have a bearing on the decision, as can the width of the column or document and – particularly – the size of the spaces between words.

We will be looking at the spaces between words (and, indeed, between characters) when we return to typography in the near future and examine a number of practical ways in which these various aspects of software control can be combined to make the most effective use of type in your documents.

■ For a description of the difference between TrueType and PostScript fonts, turn to *Mac Answers* on page 91.

Five top tips for making the best use of type

Wherever you are using type, there are some handy rules of thumb that will help you to get your document looking right. Here are a few of them:

1 Lower case (small) letters are easier to read than capitals.

Capitals are almost exactly the same height as each other, whereas lower case letters have more dissimilarities – some only fill the x-height, some have ascenders, some descenders and so on. Because of this, words typed in small letters have more distinctive shapes and are more quickly recognised than words in capitals, which tend to have similar shapes to each other.

For this reason, it is a good idea to avoid setting any substantial quantity of text in all-capitals – you will just tire your reader out with the low legibility.

2 The length of a line of type affects the legibility of the text.

Long lines are more difficult and tiring to read than shorter ones (although a lot of consecutive extremely short lines make for poor legibility, too). The problem is not just one of distance, but of time – the eye can comfortably move in a straight horizontal line for just so long, and then it wants to flick back and down, and get on with the next line. The time taken to travel along a line depends on how much information you are trying to take in, so the smaller the type, the shorter the comfortable length of a line.

Certainly up to 50 and sometimes up to 70 characters per line is comfortable (counting spaces and punctuation marks as well as letters and numbers). If your type is of such a size that there are more than this number of characters per line, you should be thinking of breaking the space down into two columns.

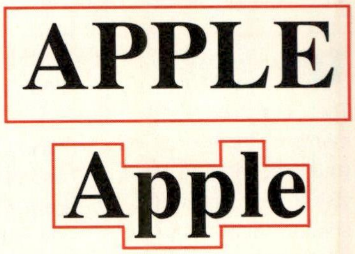
3 Make sure that you use enough leading so that the space between lines of text is greater than the spaces between words on a line.

Our eyes prefer to travel the shortest distance possible between fragments of text (or rather, that's what our brains prefer them to do), and if the shorter jump across space is between lines rather than between adjacent words, then the reader will tend to skip to a word on the next line down instead of moving to the next word in the sentence. The effect is a little like the way that a stylus sometimes jumps the groove on an old-fashioned vinyl record.

4 If long lines of text are more difficult and tiring to read because the eye wants to quit the line it's on and work on another, and if too-closely leaded type is difficult to read because the eye wants to take the shortest route to the next chunk of text, then there's a further implication of the two ideas combined.

Be prepared to give text which is set across a wide measure (or which has a high character count per line) more leading than you would expect to give the same font and size if it were set across shorter columns – wide-set type (or rather, the poor reader) needs all the help it can get.

5 If you do use consecutive lines of text set in all-capitals (say for a headline), then you should normally cut back on the amount of leading that would be correct for mixed text.



With occasional exceptions, capitals are all the same height. Small letters produce more distinctive word shapes, making lower case or mixed text more comfortable to read

This is one of the places in which using software defaults can go badly wrong – the auto-leading will be calculated on the assumption that each line must be allowed clearance space from the descenders on characters in the line above, when in reality there aren't any descenders to keep clear of. Depending on the size of the type, try solid setting and see how that looks – in the end, you may need to use a negative leading figure to get it looking just right.

You can also apply this rule to a mixed case headline where the top deck has no descenders, but the reduction will be less than with caps on faces which have tall ascenders.

Music
ON THE MAC

If you've got a Mac you're already halfway to owning your own recording studio. All you need is some software and a MIDI instrument. Virtuoso Ian Waugh shows you how to get started

Give a guy a set of drum sticks and he can be Phil Collins; a guitar and he can be Eric Clapton. Give someone a Mac and they can be Dire Straits, John Williams, Fats Waller, Vangelis, Ludwig Van Beethoven or the London Philharmonic.

The Mac has always been the professional's choice for a music computer in the US. It was only the Mac's inflated UK price which stopped it being the first choice over here as well, but Apple's introduction of low-cost Macs over the past couple of years has changed all that.

More music software developers than ever before are writing for the Macintosh. There are music programs of all types available to match all requirements from beginner to pro and to suit all pockets.

Mac makes music

You don't need a degree in astrophysics either because, like everything else you do with your Mac, making music is easy too.

The basic principle is very simple – you use a software sequencer to convert your Mac into a multitrack tape recorder. You do the recording and editing on the Mac and play the result through a synthesiser, organ, electric piano or portable keyboard. The key to the link-up is a Musical Instrument Digital Interface, otherwise known as MIDI.

But the similarity between a Mac-based sequencer and an audio tape recorder stops there – a sequencer is infinitely more powerful and versatile. For example, a multi-track recorder might have 8, 16 or 24 tracks. Even the most basic sequencer has 16 tracks and most have 32, 64 or more.

Editing on tape is not very flexible. To change one note you have to record the whole track again or 'punch in' and re-record over a section of music. With a sequencer, every parameter is stored as a number so you have complete control over the music. You can edit a single note anywhere in the recording, make it longer or shorter, change its pitch or alter its volume, or add effects such as sustain or pitch bend.

If you don't read music notation (a surprising number of professional musicians don't) sequencers can show notes as lines on a grid or as a list of events so you can still home in on them and edit them.

Although modern sequencers have many functions, there are two in particular which make them so useful to the beginner and the pro.

The gear

There are dozens of instruments on the market and your best bet is to pay a visit to your local music shop to check them out. When buying gear the two magic words to bear in mind are polyphony and multi-timbral – provided you like the sounds it makes, of course!

The following is a small selection of instruments – from a number of manufacturers – worth seeking out. Prices are RRPs including VAT – don't forget to haggle.

Akai S01 (£799): new budget-price sampler – a bargain even though it only offers eight-part multi-timbral and eight-note polyphonic sound.

Kawai K4 (£499): oldish and therefore cheaper, it comes with excellent sounds – a bargain. Eight-part multi-timbral, 16-note polyphonic.

Kawai K4r (£299): rack-mount version of K4: no effects but extra outputs.

Roland JV-30 (£985): good entry-level synth with 24-note polyphony.

Roland SC-155 (£715): GM module with sliders for easy editing. 315 sounds plus nine drum kits.

Roland SC7: (£275) GM sound module with serial interface – **£394** with additional software

Boss Dr Synth (£410): a budget GM module, made by a subsidiary of Roland, with 156 sounds.

Korg 01/W (£1,645): Korg's new boy on the block for serious musos. 16-part multi-timbral, 32-note polyphonic.

Korg's 01/W

Korg M1 (£992): five years old but still popular thanks to a price reduction. Eight-part multi-timbral, 16-note polyphonic.

Korg Wavestation SR (£980): produces its sounds by linking waveforms. Very distinctive, excellent for soundtracks. 32-note polyphonic.

Yamaha SY85 (£1,499): 256 sample-based sounds. Lets you load new samples. 30-note polyphonic with built in sequencer.

Yamaha SY35 (£659): good entry-level synth with 120 sample-based sounds and 32-note polyphony.

Yamaha TG500 (£1,099): a rack-mount expander version of the SY85 but 64-note polyphonic.

Yamaha PSR600 (£550): portable keyboard with auto accompaniments and built-in disk drive. Good MIDI spec, 28-note polyphonic. Special offer price.

Yamaha PSR500 (£500): as the PSR600 but without the disk drive.

Yamaha PSS51 (£240): excellent portable keyboard with 100 sample-based sounds, 80 accompaniments and 28-note polyphony.

The S01 sampler from Akai

Yamaha's SY85

Answer to bad timing

The first is quantisation. This is a way of pulling sloppy timing back on to the beat. So even if your keyboard skills won't threaten Herbie Hancock's career, quantisation can tweak a music line so it seems as though it was recorded with rock-steady timing.

And if you can't even play badly, step-time recording will let you enter notes one at a time.

No, it's not cheating! Many of the records you hear in the charts contain music lines which have been quantised or recorded a note at a time. It's not the physical playing skills which count, it's the musical ideas which are important. Even if sequencers haven't made playing skills redundant they have at least made great technical expertise unnecessary. That said though, the better your skills at playing an instrument, the more likely you are to have good musical ideas.

The second feature is actually a function of MIDI and concerns the sounds you use on playback. MIDI records note data such as pitch and duration, and effects such as sustain, modulation, pitch bend and so on. But it doesn't store the actual sounds – these are totally dependent on the instrument used for playback.

It makes sense if you think about it. A pitch or duration is easily stored as a number or two. However, the sound produced by a synthesiser can be made up from 1,000 parameters or more – and that's before you bring in the sound generation circuitry on top of that!

Sounds in MIDI are stored simply as a program number which you can change like any other MIDI parameter. If you record a music line using a piano sound, you only have to change the program number in the track to make the playback instrument switch to a flute, a trumpet or any other sound it can handle.

While this has obvious benefits it also has a disadvantage. If you give a MIDI file to someone else it won't sound the same unless they have the same instrument as you.

The solution to this is GM (General MIDI) which assigns specific sounds to certain program change numbers. There are several GM instruments on the market and they are very popular with musicians who buy off-the-shelf MIDI files and need to know that they will play correctly.

MIDI basics

You don't need to know all the ins and outs of MIDI to be able to use it but you do need to know how the system is organised.

MIDI is a communications protocol for music data, in the same way that, among users of modems, something called the Hayes command set has become an accepted standard. However, most sequencers translate the numbers which travel down the MIDI cables into musical terms (unlike the Hayes command set whose friendly face is still a bunch of mnemonics) so you can relate to your sequencer in a musical rather than a numeric way.

MIDI can handle 16 channels of information at a time and your sequencer can specify which MIDI channel each track is to transmit on. Each MIDI channel can use a different sound which is determined by the program number assigned to it. This effectively puts you in control of a 16-piece band or orchestra. Fortunately, most modern synths and expanders can actually play 16 sounds at once, but you'll also need something which can play lots of notes (or voices) at the same time.

If an instrument can play 16 different sounds but only 16 notes at once, you could use up eight or ten notes on one piano part. The trend in modern instruments is towards 24, 32 or even 64-note polyphony.

Synths and samplers

The best all-round instrument for use with a sequencer is a synthesiser. These have a keyboard so you can physically play music into the Mac and a synthesis section which will generate lots of sounds. There are also MIDI guitars, MIDI drum pads, MIDI violins and MIDI saxophones, but most musicians use a keyboard because it's not really difficult to play (just difficult to play well) and has lots of control facilities built-in.

An expander or synth module is essentially a synthesiser without a keyboard. They were developed to give musicians more sounds for fewer pounds – after all, if you already have one set of keys, why pay for another?

A lot of chart music, particularly rave and dance styles, is constructed with a sampler, with nicked bits from other people's records, drum beats from CDs, and weird noises from old analogue synthesisers.

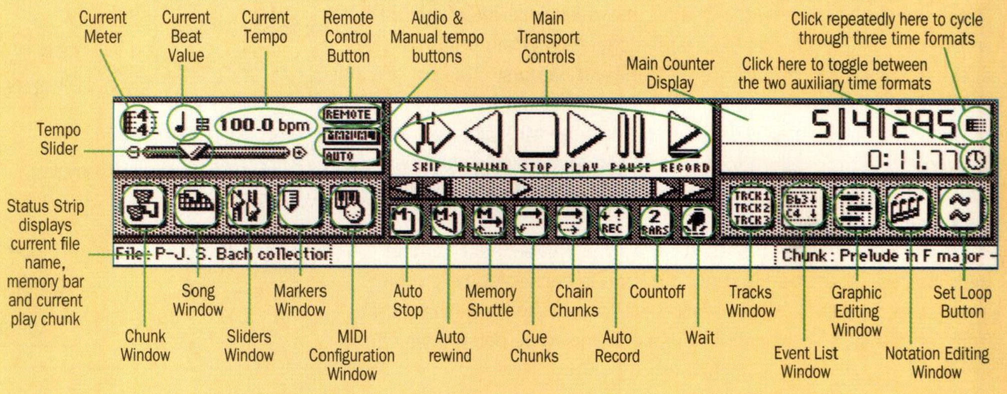
Samplers can be used in a traditional way as a source of realistic acoustic sounds and they can be used creatively to produce musical tones from a wide variety of everyday sounds. You can turn a retching puke into a tuba, a toilet flush into an explosion, a breaking glass into a flute. Oh the fun you can have...

Samplers are the most versatile and creative of all musical instruments (toilet flushes apart) but even then they are rarely used to their full potential. You do, indeed, only get out of them what you put in.

But how can you link your Mac……

Anatomy of a sequencer

In Mark of the Unicorn's *Performer* the Consolidated Controls panel has all the options you'll ever need – and then some


Current Meter
Current Beat Value
Current Tempo
Remote Control Button
Audio & Manual tempo buttons
Main Transport Controls
Main Counter Display
Click here to toggle between the two auxiliary time formats
Click repeatedly here to cycle through three time formats
Tempo Slider
Status Strip displays current file name, memory bar and current play chunk
Song Window
Chunk Window
Sliders Window
Markers Window
MIDI Configuration Window
Auto Stop
Auto rewind
Memory Shuttle
Cue Chunks
Chain Chunks
Auto Record
Countoff
Wait
Tracks Window
Event List Window
Graphic Editing Window
Notation Editing Window
Set Loop Button
100.0 bpm
REMOTE
MANUAL
AUTO
SKIP REWIND STOP PLAY PAUSE RECORD
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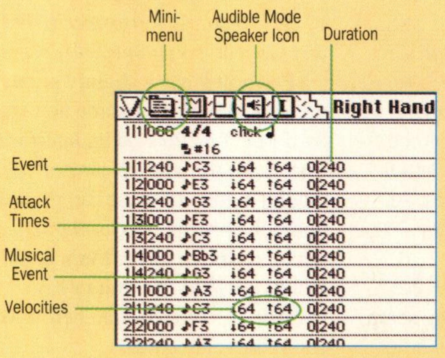
0:11.77
REC
2 BARS
TRCK1 TRCK2 TRCK3
File: P-J. S. Bach collection
Chunk: Prelude in F major


Mini-menu
Audible Mode Speaker Icon
Duration
Event
Attack Times
Musical Event
Velocities
Right Hand

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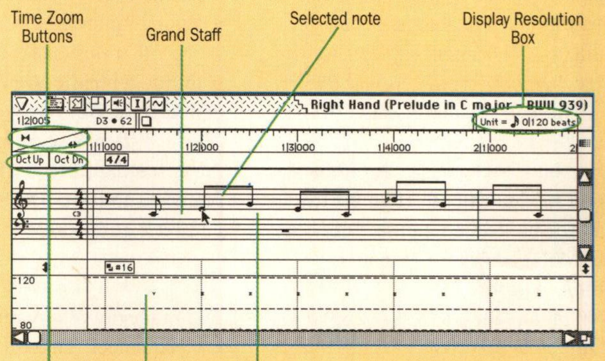
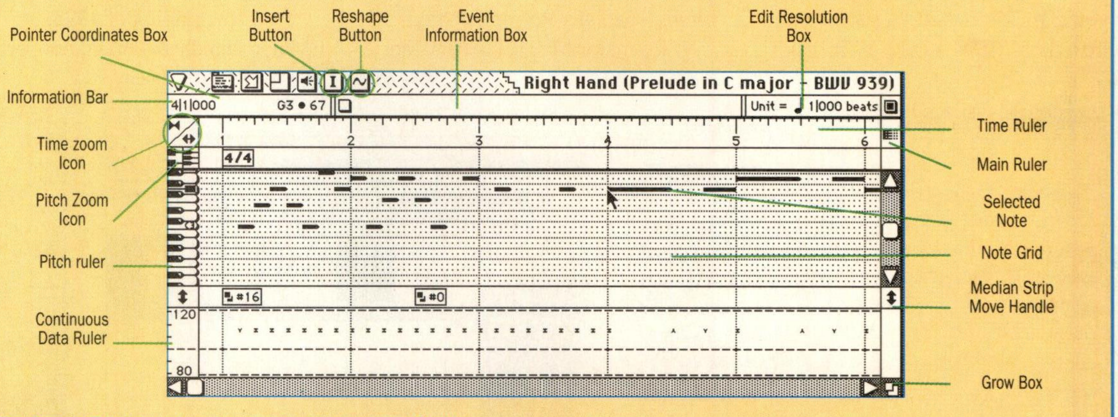
1|1|000 4/4   click ♩
        ♫ #16
1|1|240 ♪C3   ↓64  ↑64  0|240
1|2|000 ♪E3   ↓64  ↑64  0|240
1|2|240 ♪G3   ↓64  ↑64  0|240
1|3|000 ♪E3   ↓64  ↑64  0|240
1|3|240 ♪C3   ↓64  ↑64  0|240
1|4|000 ♪Bb3  ↓64  ↑64  0|240
1|4|240 ♪G3   ↓64  ↑64  0|240
2|1|000 ♪A3   ↓64  ↑64  0|240
2|1|240 ♪C3   ↓64  ↑64  0|240
2|2|000 ♪F3   ↓64  ↑64  0|240
2|2|240 ♪A3   ↓64  ↑64  0|240
```

The Event List window shows music in a list: the event number, start time, note name, on and off velocities (not many synths support off velocity) and duration


Time Zoom Buttons
Grand Staff
Selected note
Display Resolution Box
Right Hand (Prelude in C major - BWV 939)
Oct Up
Oct Dn
4/4
Octave Up/Down buttons
Continuous Data Grid
Staff Margin

The Notation Editing window is for musicians who prefer to work with the dots. But alas there is no printout option


Pointer Coordinates Box
Insert Button
Reshape Button
Event Information Box
Edit Resolution Box
Information Bar
Time zoom Icon
Pitch Zoom Icon
Pitch ruler
Continuous Data Ruler
Time Ruler
Main Ruler
Selected Note
Note Grid
Median Strip Move Handle
Grow Box
Right Hand (Prelude in C major - BWV 939)
4|1|000
G3 • 67
Unit = ♩ 1|000 beats
4/4
#16
#0
120
80

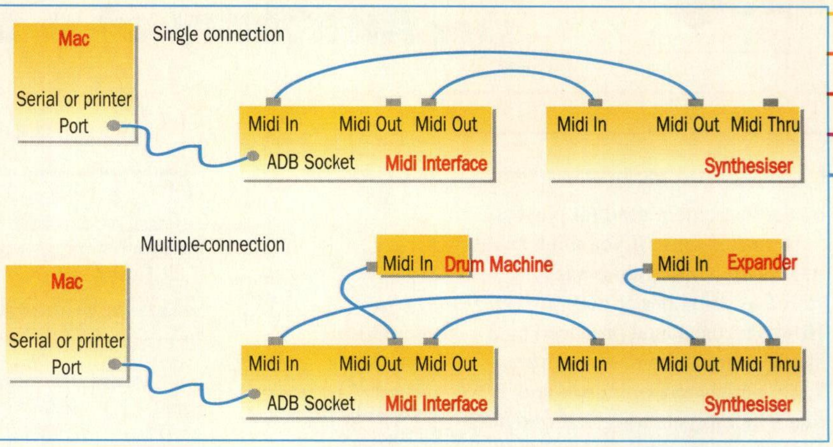
The Graphic Editing window shows notes as bars on a grid. It's easy to pick up notes and edit them – but try humming the tune

Making the right connections

There are three types of MIDI socket: In, which receives data; Out, which transmits data; and Thru, which passes on data being received at the In socket which in turn allows units to be daisy-chained. It is not another Out socket.

Most Mac MIDI interfaces have two or three MIDI Out sockets. The diagram on the top right shows how to connect a single synthesiser to your Mac, while the one below it shows how you can add additional instruments to your setup.

If your interface has three MIDI Outs you can connect another instrument to it just as the drum machine is connected here. This setup also uses the synthesiser's MIDI Thru socket to pass on data from the Mac to the Expander, a process known as daisy-chaining.



up to these marvellous bits of kit? Most musical instruments have a built-in MIDI interface. Not so the Mac – so you'll have to buy one.

These instruments range from devices such as Opcode's MIDI Translator (very basic, but it does a good job and is cost-effective) at £59 to sophisticated units with built-in SMPTE such as Opcode's Studio 4 (£449).

The Dream GMX-1 (£269) and Yamaha's TG100 (£349) are both interesting alternatives. They're expanders so you'll also need a keyboard to record your music, but they both have a serial interface which you can link to the Mac, and then treat their MIDI sockets as if they were the Mac's – saving the cost of a separate interface.

Another option for the beginner is to buy a bundle. *Dr T's Intro+* contains the *Beyond* sequencer, *Music Writer* (a scorewriter which reads standard MIDI files), a MIDI interface and two MIDI cables. At £229 it's good value for money.

Time to make tracks

The mainstay of any recording setup is a sequencer. There are over a dozen Mac sequencers covering a wide range of prices and facilities. Before buying one you need to look at your needs both now and in the future – and at your piggy bank.

Two major Mac sequencers are battling it out for top place – Mark of the Unicorn's *Performer* (£499) and Opcode's *Vision* (£399).

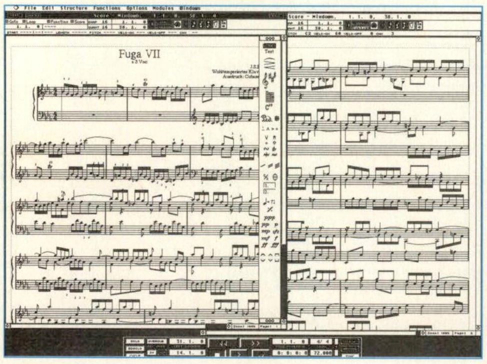
Performer has a slightly greater pro appeal but it has some non-standard Mac functions in its interface. *Vision* has the edge in ease-of-use. Oddly, neither of these can print out notation although *Performer* has a notation edit window. Mark of the Unicorn would like you to pay another £599 for *Mosaic* before you can print your scores.

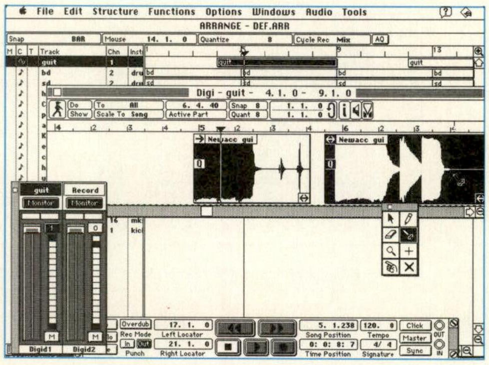
Steinberg joined the fray with a Mac version of the ever-popular *Cubase* (£449), which has now been updated to *Cubase Score* (£599).

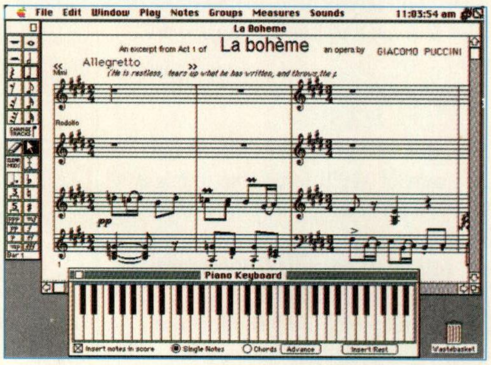
At the beginning of 1993, EMagic launched a brand new program called *Notator Logic* (£499). Although it has its roots in *Notator*, the premier sequencer-cum-scorewriter for the Atari ST, it is a new program featuring an object-oriented approach to sequencing.

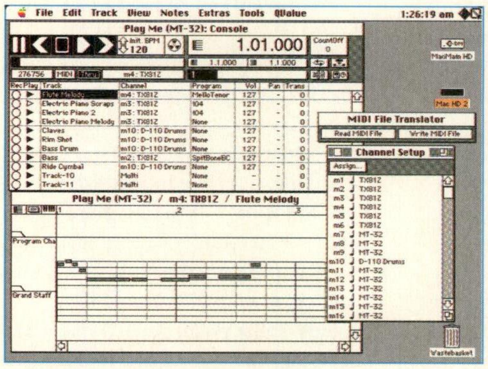
These sequencers are the best in their field on any computer platform. They have far more functions than most of us need, but the power and control they offer is superb – apart from the lack of notation facilities on some.

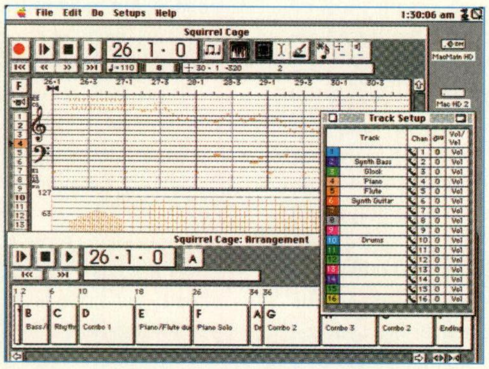
Passport's *Master Tracks Pro 5* (£379) is a little cheaper and has a very intuitive interface. Passport's *Encore* (£459) is a good scorewriting package if that's your prime concern although it lacks the arrang-

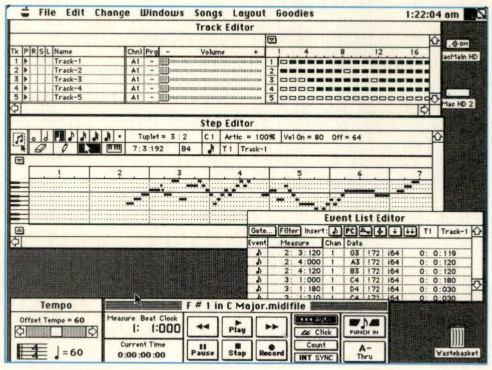

As you can see from this screen shot of Steinberg's *Cubase*, all windows-based programs can benefit enormously from a large screen monitor


This Steinberg offering, called *Cubase Audio*, adds the capacity for digital audio recording on your Mac as a step up for users of *Cubase* sequencer


Electronic Arts' *Deluxe Music Construction Set* is the cheapest way into scorewriting on the Mac although it doesn't have all the features of the more up-market scorewriters


Electronic Arts' *Deluxe Recorder* is budget but has many features like an informative track page, grid editing, a MIDI file translator and you can assign MIDI channels to instruments


EZ Vision is an entry-level version of Opcode's *Vision*. You can create up to 25 sequences and link them together in an Arrange window to produce a complete song


Passport's *Master Tracks Pro 5* has three main edit windows which are called Song, Grid and Event. Its interface will immediately seem familiar to Mac users

Editors and librarians

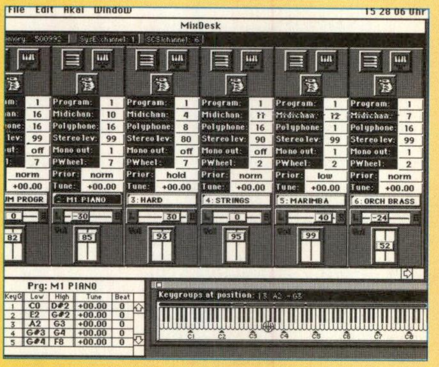
It's all very well having ultimate control over the notes in your music but you also need control over the sounds in your synthesisers.

An alternative to fiddling about with tiny LCD displays and wading through nests of menus is to use a software editor. These show lots of parameters on screen at once and in a very graphic format which makes it easier to be creative.

On the other hand, if you're more interested in simply storing and cataloguing your sounds rather than creating new ones (there are lots of sounds available from third-party suppliers) you need a librarian. Most editors have a librarian function, too, but if you have more than one synth it's worth looking at a generic editor/librarian which can handle many different instruments.

One of the most popular is Opcode's *Galaxy* (£199), but it is also available as part of the bundle which comes with *Vision*).

There are also editors designed for samplers, too. These include Passport's *Alchemy* (£459) as well as Steinberg's *Panel Partner* (£199).



	Program:	Midichan:	Polyphone:	Stereo lev:	Mono out:	PWheel:	Prior:	Tune:			
	1	16	16	99	off	7	norm	+00.00	M PROGR	0	82
	1	10	16	99	1	7	norm	+00.00	M1 PIANO	-30	85
	1	4	8	80	off	7	hold	+00.00	3: HARD	30	93
	1	11	16	90	off	2	norm	+00.00	4: STRINGS	0	95
	1	12	1	99	1	2	low	+00.00	5: MARIMBA	40	99
	1	7	16	99	1	2	norm	+00.00	6: ORCH BRASS	-24	52

Prg: M1 PIANO

KeyG	Low	High	Tune	Beat
1	C0	D#2	+00.00	0
2	E2	G#2	+00.00	0
3	A2	G3	+00.00	0
4	G#3	G4	+00.00	0
5	G#4	F8	+00.00	0

At £199, *Panel Partner* is Steinberg's new sample manager program

ing facilities of track and pattern-based sequencers.

Coda's *Finale* (£729) is the premier package but you won't learn how to use it in a week. If you can prove you work in education check out *Finale Academic* – virtually the same program but for only £299.

At the budget end there's Opcode's *EZ Vision* (£139), an entry-level version of Vision which only has 16 tracks but is nonetheless easy to use and still well-featured.

Electronic Arts' *Deluxe Recorder* (around £99) and *Deluxe Music Construction Set* (around £89) are available from a number of music and software outlets. Because they come from a games publisher they have a somewhat less-than-serious image but they aren't bad little programs and the *Deluxe Music Construction Set* is certainly the cheapest notation package on the Mac – and with print-outs.

The Mac is also the favourite computer for digital recording. Programs such as Opcode's *Studio Vision* (£849), Steinberg's *Cubase Audio* (£699) and Unicorn's *Digital Performer* (£765) can mix digital recording with MIDI tracks although you also need to plug a digital sound board into your Mac which can cost over £1,000.

If you want to experiment with audio/MIDI recording on the cheap, try and get hold of Passport's *AudioTrax* (£199). It's just been taken off the market but will be supported for another year. Recording is via the Mac's microphone and the quality is barely even up to demo standard but you can use it for effects and the package is fun.

Conclusion

Your Mac can form the heart of a sophisticated music recording studio – and you already have the most important piece of equipment!

This feature has looked at Mac music from a beginner's point of view, but later there will be reviews of pro gear such as *Notator Logic*, budget programs, and all the other aspects of music on the Mac. **mf**

Jargon Busters

MIDI: Musical Instrument Digital Interface. A communications protocol which converts music functions into numbers

Multi-timbral: The ability of an instrument to play more than one sound at the same time via MIDI. These days most current instruments are 16-part multi-timbral, although you may find a few which are less

Polyphony: The maximum number of notes an instrument can play at once.

Most modern instruments are at least 16-note polyphonic but the trend is increasingly towards 24 and 32-note polyphony. However, some older instruments only have eight-note polyphony.

If you want to reproduce piano music then 16-note polyphony is the minimum you should be looking for

MIDI file format: A generic file format which allows sequences to be handled by any sequencer which supports the format

SMPTE: Society of Motion Picture and Television Engineers. A synchronisation format used to synchronise sequencers, tape and video. The kit costs a little more than MIDI sync units but it's the biz

Sequencer essentials

It's nice to have a sequencer with lots of features but, unless you're a high-powered user, you probably won't use them all. Here's a check list of features you can use to decide which ones are important to you when choosing a sequencer.

Number of tracks: As MIDI only has 16 channels you may think 16 tracks will be enough but 32 tracks or more gives you greater flexibility.

You can create several alternative music lines, you can make up a single line by recording it in sections across several tracks (it's safer than punching in) and when you record drum patterns you can put each drum on a separate track which makes editing much easier.

Edit modes: If you want to avoid having to use notation, sequencer developers have devised a whole range of alternative displays.

The grid editor shows notes as bars on a grid, the event editor shows data in an alpha numeric list, graphic editors are used for controller information (you can often draw this into the program) and song editors show music in increments of a bar for block edit functions.

Notation: If you can read music then you can't beat a notation display. You can't look at a grid editor, the most popular alternative, and still pick out the tune!

Drum grid editor: If your music is heavily rhythmic, it's worth getting a sequencer with a drum editor. This is simply a grid on to which you insert drum hits. It's much like programming a drum machine but it's much more flexible – of course.

Quantisation: All sequencers have a quantise function. The more sophisticated ones have partial quantisation which tidies up the timing while maintaining a degree of humanisation. Some sequencers have a swing quantise function which can jazz up a run of straight notes such as Bach – great fun!

Synchronisation: If you intend to work with video you'll need special hardware such as a SMPTE interface to synchronise the sequencer to video. And a sequencer which supports it, naturally.

Extra MIDI channels: You may think 16 MIDI channels is enough but if you have two synths it can be a good thing to drive each of them from a separate MIDI port, especially if one of them is a GM module.

Most sequencers can output data from the modem or printer port. Some can output to both, effectively giving you 32 discrete MIDI channels but remember you'll need a second MIDI interface.

Standard MIDI files: Support for Standard MIDI files is a must unless you're intending to become a musical hermit. Luckily most sequencers can handle them.

Contacts

MCMXCIX: distribute equipment made by Opcode, Passport and Coda – among others.
☎ : 081 963 0663

Sound Technology: specialise in Mark of the Unicorn and EMagic.
☎ : 0462 480000

Harman UK: official distributors for Steinberg.
☎ : 0753 576911

Zone Distribution: they distribute Dream and Dr T.
☎ : 071 738 5444

To find out your local dealer, call:
Yamaha: ☎ : 0908 366700
Roland (inc. Boss):
☎ : 0252 816181
Korg: ☎ : 081 427 5377
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ACC0617	MacLuggage LC w/12 in. Color Monitor Black Case	£79
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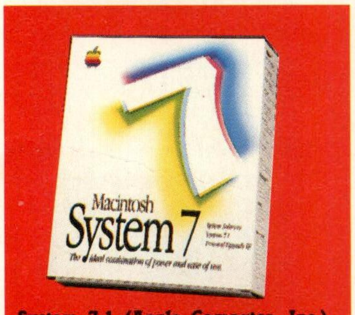

System 7.1 (Apple Computer, Inc.)
In addition to all the new features Apple introduced in System 7.0, new System 7.1 includes a new Fonts Folder (it's located in the System Folder). It stores all your fonts, including TrueType™ fonts, Bitmap fonts and Type 1 fonts, in one conveinient centrally located place. Installing a font is a snap. Just drag it to the system folder and your Mac automatically installs it. Plus System 7.1 comes complete with 17 TrueType fonts and includes new QuickTime™ 1.5 software. Now adding animation, sound and video to your reports, proposals and presentations is as easy as cut and paste.

System requirements: 2 MB RAM (4 MB recommended), hard drive.

SYS0004 .... £35

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ACC0736	Business Traveler Case-Standard Version	£179
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NET0182	MC+SEET for SE, Thick/10BaseT, 32K	£115
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COM0101	QuickMail 2.5.1 (5 user)	£215
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COM0135	MacLink Plus / PC 7.0	£135
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NET0007	PhoneNET Plus, SE & II PN308X	£19
NET0190	PhoneNET StarController 12 Port PN357	£979
NET0191	PhoneNET StarController 24 Port PN377	£1239
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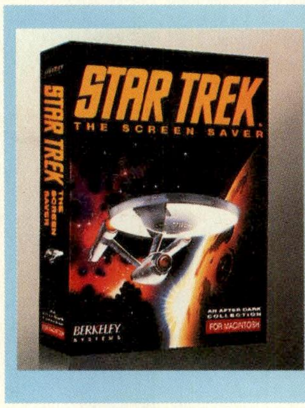
UTI0308 .... £85



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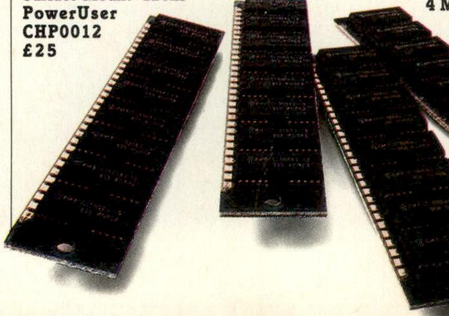
6 MB PowerBook 140/170 Upgrade
CHP0068 .... £299



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MUS0092 .... £279

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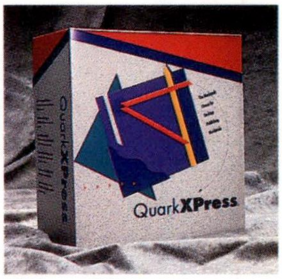

QuarkXPress 3.1

QuarkXPress 3.1 adds numerous new functions to this layout application. With its Colors Palette, you can apply color to text, pictures, lines, box backgrounds, and frames, and specify two-color blends. It offers Pantone®, TruMatch and Focoltone color matching systems. In the word processing section, new Tab refinements and Style Sheet Palettes save time. New typographical controls include flexible space characters, alternative hyphenation methods, ligatures, and single word justification. A Picture Update Preview lets you preview TIFF and RIFF images in the Get Picture dialog box.

DTP0071 .... £549

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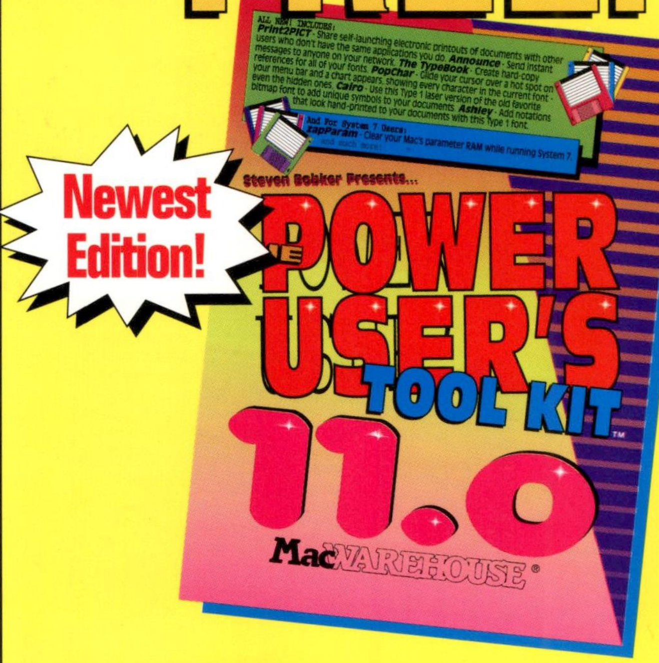
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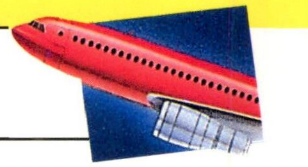

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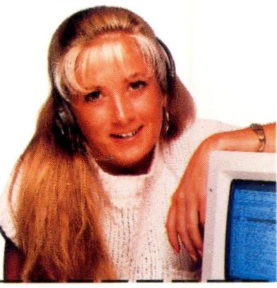

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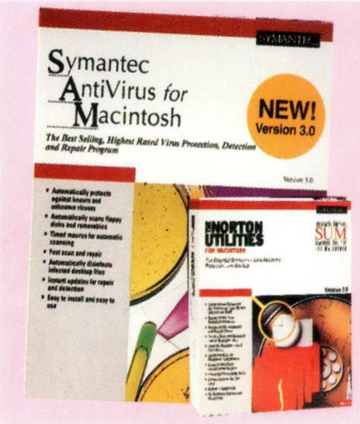

Norton Utilities/SAM w/Subcriptions Bundle for the Mac
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Requires: Mac 512KE or higher; System 6.0 and Finder 6.1 or later.

UKBND0105 .... £199

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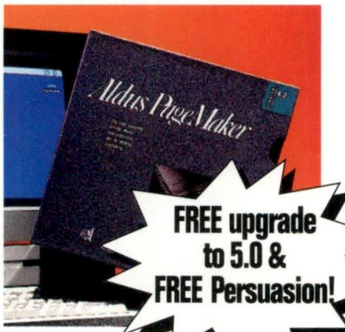
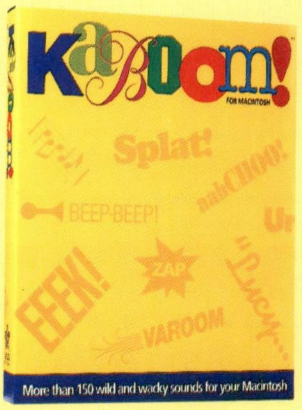


Aldus PageMaker 4.2 (Aldus)
PageMaker 4.2 has the tools for creating design-intensive layouts, plus support for long documents, such as multi-chapter books and technical manuals. PageMaker handles black and white and four color layouts. PrePrint 1.5, included FREE with PageMaker 4.2, allows you to make color separations. PageMaker's on-screen interactive pasteboard simplifies page layout, and its Story Editor makes writing and editing easy. PageMaker 4.2 provides six Additions, including one that makes drop caps automatically, and another that balances column lengths. PageMaker 4.2 takes full advantage of System 7, including Publish and Subscribe, Apple Events, Balloon Help and TrueType.

DTP0072 .... £479



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Requires: Any Macintosh with 1 MB RAM; hard disk drive. Compatible with Systems 6.0.4 and later.

UTI0281 .... £29

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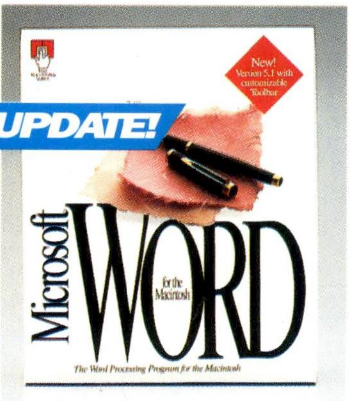

Microsoft Word 5.1
Microsoft Word 5.1 brings many new user conveniences to this time-tested word processor. The user-configurable 3D toolbar puts the commands you need most often at the top of the screen. Up to 30 on-screen buttons execute complex chores such as adding bullets, creating tables, inserting drop caps, and printing envelopes. Drag and Drop editing simplifies moving text blocks. The Find File command searches by file name, keywords, author, or date of creation. Word 5.1 includes a charting module and integrated grammar checker.

WRD0059 .... £219

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More than Words

Whether it's a first purchase or an upgrade, buying the right word processing program can be tricky. Ian Wrigley tells you what to look out for in both stand-alone word processors and integrated packages

Word processors are all the same, right? Wrong. Although they all perform the same basic task – processing words – there are vast differences in the range of features available. This issue, we're looking at all the common features of the different programs, plus some of the facilities that can only be found in one or two.

There's a word processor to suit every pocket – from shareware DA text processors, through 'editors' which are really designed for programmers, rather than people writing letters and so on, to £200-plus monsters with every feature you could possibly think of – and a fair few more as well.

It's beyond the scope of this feature to compare them all – that will be done in a future issue of **MacFormat** – but what we can do here is to describe the sort of things that you might want to consider when choosing what to buy, whether it's your first purchase or you've decided that you want to upgrade to a word processing program with more power.

Basic features

All word processors worthy of the name should provide a range of basic features. These include the following:

- A selection of different fonts and type sizes that can be used.
- The ability to format characters – for example, to turn any of the text into bold or italic.
- A facility for formatting paragraphs – to specify that text is centred, right-or left-ranged, justified and so on.
- Some means of selecting, changing and customising the page size you want to work with.
- A word/phrase finder, with the option to replace occurrences with different text (Find and Replace, or Search and Replace).
- A feature for checking all of the spelling in a document.

Every word processor available for the Mac has these features, but some other functions which are considered equally 'basic' by many people are less universal – at least, some programs may have the features, but they hide them away from the user.

For example, a 'word count' facility is considered vital by people such as journalists, academics and students. But, although most programs have this facility, it's harder to find in some than others. *Claris Works*, for instance, will perform a word count – but only as part of the spelling checker. This means that, in order to count the words in your document, you must go through the whole thing correcting or ignoring any spelling mistakes – something which most people would prefer to leave to the end of the writing process.

There's no real reason for this: writing the word count feature is a trivial programming exercise, so why it hasn't been included as a separate option is a mystery.

Search and replace is another area where some programs are more user-friendly than others. Finding and replacing 'normal' characters is no problem – all programs do this fairly well. But it's when you need to search for 'special' characters that the fun starts.

These special characters are things like tabulation marks, end-of-paragraph marks, page breaks and the like. They aren't normally visible (although it's possible to display symbols for them in some word processors, such as *Microsoft Word*), but it can sometimes be useful to search for them – see the tip on altering document formats, for example.

Different programs have different ways of specifying these formats – and some are far easier to get along with than others. At the top of the pile, *Microsoft Word* has a pop-up menu in its **Find** dialogue box which allows you to specify any special character directly, simply by selecting it. *Microsoft Works* will only deal with end-of-paragraph and tab characters (although, to be fair, these are the most common special characters anyway), while *Claris Works* and *MacWrite II* get more complicated; both require you to use the **[Command]** key in conjunction with the keystroke **[Command] [Return]** in order to find an end-of-paragraph mark, for example.

Generally speaking, it's only the stand-alone word processors which have the useful facility to search for, and replace, text in a specific style – for example, find all Helvetica 12pt bold text and turn it into Times 10pt underlined. In the word processing modules of the integrated packages, you have to do that by hand – which is a time-consuming process. Likewise, it's only in the fully-fledged word processors that style sheets are used.

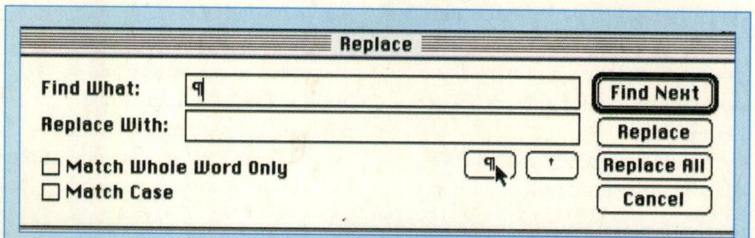
A style sheet is a way of specify- ……

TIP

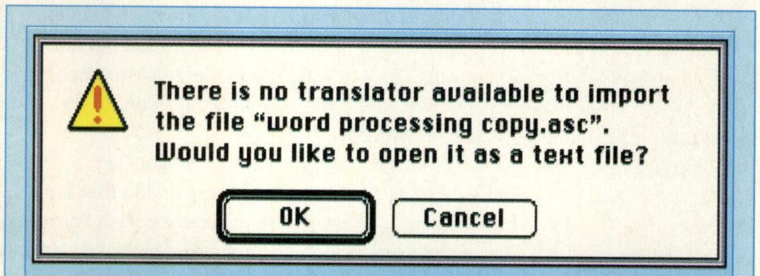
Most people separate their paragraphs in one of two ways: either with a blank line between paragraphs, or with a tab at the beginning of each new paragraph. If you're given a document in one format it's easy to change it to the other.

Blank line to tabs
Search for two paragraph marks, and replace them with a paragraph and a tab mark. In *Claris Works*, this means you'd search for '\p\p' and replace it with '\p\t'; in Microsoft Word, search for '^p^p' and replace with '^p^t'.

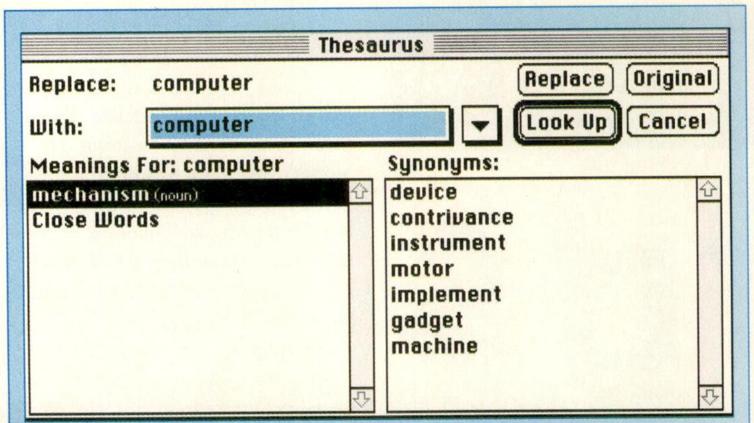
Tabs to blank lines
This is easy – just reverse the process. So in *Claris Works*, search for '\p\t' and replace it with '\p\p'; in *Word*, replace '^p^t' with '^p^p'.



Microsoft Works has buttons which make it easy to find paragraph and tab marks – this is a feature that you won't find in *Claris Works*, for example


There is no translator available to import the file "word processing copy.asc". Would you like to open it as a text file?

Microsoft Works is intelligent enough to know when it can't open a document correctly, and therefore asks you if you want to open it as plain text instead (which is, in fact, how this file was saved in the first place...)



Replace: computer

With: computer

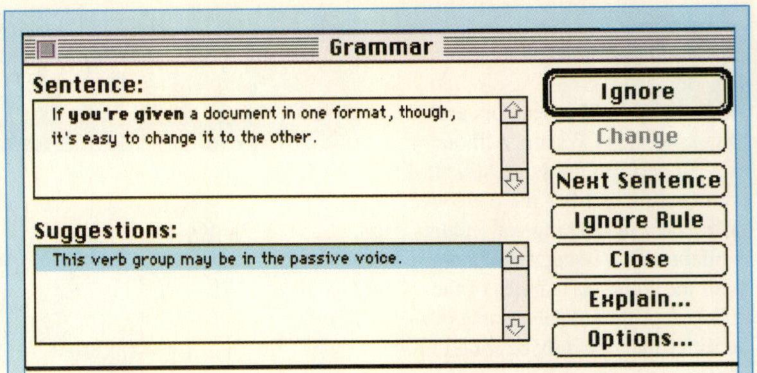
Meanings For: computer

mechanism (noun)
Close Words

Synonyms:

device
contrivance
instrument
motor
implement
gadget
machine

Microsoft Word's thesaurus: consign Roget to the back of a cupboard…



Sentence:

If **you're given** a document in one format, though, it's easy to change it to the other.

Suggestions:

This verb group may be in the passive voice.

Microsoft Word's grammar checker doesn't like my English…

ing how a paragraph should look; so you define, for example, the style for 'important paragraph' as 'Times 12pt on 14pt leading, bold, with a 2pt rule above and underneath the paragraph', and then just apply the style to any important paragraphs in your document. Changing the definition of the style echoes that change throughout the document wherever the style has been used – which can save a great deal of time if you're working with a large file.

Importing and exporting

Unless you never intend to share files with anyone else, it's important that your word processor be able to generate a file that can be read by the person receiving it. The most basic file format is known as 'plain text' or 'ASCII' (which stands for the American Standard Code for Information Interchange, and is pronounced 'askee').

Jargon Busters

pt, point: A measure of type size: the larger the value, the larger the type

Leading: The space between lines of type. The term comes from traditional typesetting, where lines of metal type were separated with thin slivers of lead. Leading is measured in points and, strictly speaking, is the distance between the two lines, but normally type is specified as 'x on y point' – for example, '12 on 14 point' or '12/14pt'. This means that the type should be 12pt, and the distance between the bottom of one line and the bottom of the next should be 14pt – so there's 2pt of extra space, which gives the copy a more 'open', spacey look which is easier to read. Another way of specifying the distance between rows of type is to talk about 'line spacing' – for example, 1.5 line spacing. This is the method that is used on typewriters and, while not as accurate as specifying the leading, is easier for most people to relate to – so it's the method used in most integrated packages

Any word processor will be able to read a file saved as plain text, but none of your formatting will be retained – so any images that you imported, different fonts that you used and so on will be lost.

The next level up in sophistication is 'RTF', or Rich Text Format. This is a standard which Microsoft invented, and which a number of other manufacturers have incorporated into their products.

RTF is much more 'intelligent' than plain text, and contains information about the fonts used, their sizes and so on. If you import an RTF document into a word processor which understands the format, you'll end up with a pretty good approximation of what the document's creator saw on his or her machine.

If someone sends you an RTF file and your word processor can't deal with this format, don't panic – it should still be possible to extract the text, although it will take a bit of work. Open the document as a text file, and you'll see a great deal of seemingly meaningless information. This is the 'header' of the document, and contains the information about such things as which fonts are used.

Scroll further down, and you'll see the actual text, although there are also some strange commands sprinkled in there – for example, each quote mark will have been replaced by the text '\quote'. Unfortunately, you'll have to strip out this kind of thing by hand – or with find and replace functions, if you're careful – but at least you've got the basic text.

Further up from RTF come 'native' file formats – that is, the formats that different applications save documents in by default. The native format will contain the most information in terms of your document's appearance and so on, but it is the least likely to be readable by another application – especially if you're using one of the less common word processors.

Esoteric extras

In the battle to be the word processor of choice, manufacturers of the high-end packages are continually adding new features in order to be able to claim that their program does more than anyone else's. One such addition is support for *QuickTime* – the first to offer this was *WordPerfect*, but now any high-end word processor worth its salt will include the ability to import *QuickTime* movies into a document. Quite why anyone would want to do that, of course, is another matter entirely…

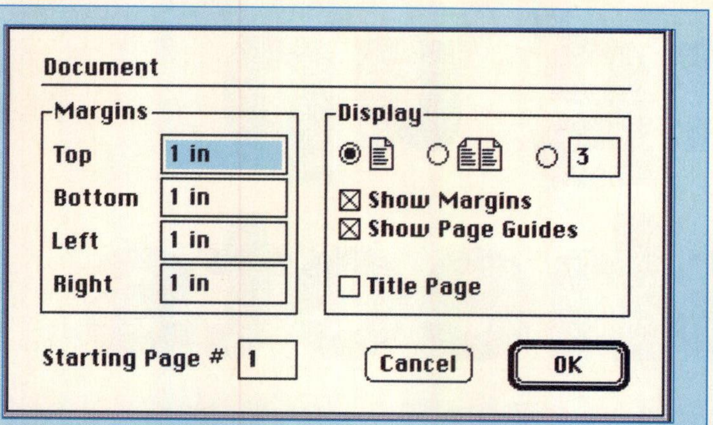
So far, the undisputed winner in the 'extra features' category is *Microsoft Word* – it now has so many features that it's estimated that most people only use about five per cent of them. These include a built-in Formula Editor for including mathematical equations in documents, a built-in drawing package, and voice annotation to a file if you've got a Mac with a built-in microphone. *WordPerfect* and the others aren't far behind, though, and are releasing new versions of their products all the time.

Fortunately, there's a way to get around this. Most word processors allow you to save documents in a number of applications' file formats – for example, *Microsoft Word* allows you to save files as, among other things, *MacWrite*, *MacWrite II* and *WordPerfect* documents. You will find that most Mac word processors will read a *MacWrite* file, so saving your data in that format should ensure compatibility. Sadly, unless your application supports DOS file types, though, you're likely to have to resort to plain text if you're going to transfer data to an IBM-compatible PC – or you could buy a dedicated file format translation program such as *MacLink Plus*. This contains a huge number of translators – whatever program was used to create the text, the chances are that *MacLink Plus* will know about it, and be able to convert it to something that your work processor can understand. On the other hand, at £187 *MacLink Plus* might cost more than your word processor did…

Finally, if you've got two applications on your Mac and no obvious way of transferring the text between them (if you've written a paragraph in a word processor which you want to incorporate into something you're drawing in *MacDraw Pro*, for example) you can always use the **Clipboard** – just **Copy** from the word processor and **Paste** into the target program.

Document formatting

Some people are happy to use a word processor just for producing letters, reports and the like, with no special formatting at all. Others, though, want their efforts to look a little more special – and if you fall into that category of user, you should check out the document



Document

Margins

Top: 1 in

Bottom: 1 in

Left: 1 in

Right: 1 in

Display

● ○ ○ 3

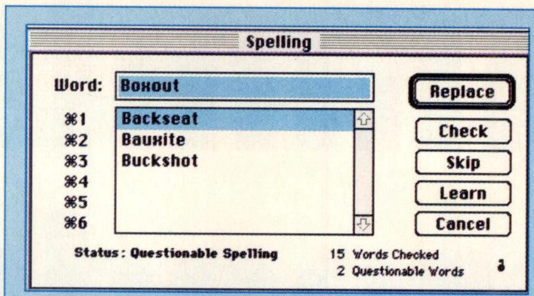
☒ Show Margins

☒ Show Page Guides

☐ Title Page

Starting Page #: 1

Formatting documents in *Claris Works* is simple



Spelling

Word: Boxout

⌘1 Backseat

⌘2 Bauxite

⌘3 Buckshot

⌘4

⌘5

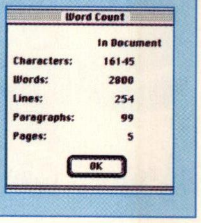
⌘6

Status: Questionable Spelling

15 Words Checked

2 Questionable Words

The *Claris Works* spelling checker doesn't approve of the word 'boxout'. The word can be added to a user dictionary so that it isn't questioned again



Word Count

	In Document
Characters:	16145
Words:	2800
Lines:	254
Paragraphs:	99
Pages:	5

Microsoft Works – unlike *Claris Works* – has an easy-to-use word count feature; *Claris Works* requires you to check the spelling in the document before it will give you the details

formatting capabilities of your prospective word processor.

These days, most will support things like multiple-column layouts (that is, pages with text running in two or more thin column), but fewer are happy with different width columns mixed on the same page, such as on this page.

You may also want to adjust the width of columns as you work – again, some programs are happier at letting you do this than others. *Microsoft Works*, indeed, is particularly tricky to get the hang of – you actually have to turn **Draw** mode on and set up the columns yourself, rather than this job being done automatically by the program.

One of the best word processors for page layout is not yet available – *MacWrite Pro*, the successor to *MacWrite II*, from Claris. This is a program with a troubled development history; it was first demonstrated over a year ago, but has since then undergone a complete re-write. Although its release date is not yet fixed, sources say that it should certainly be available in the first half of this year.

If demonstrations as seen last year are anything to go by, *MacWrite Pro's* handling of things like multiple columns will make it a strong contender for those who want to create newsletters and the like.

Another advantage of *MacWrite Pro* (when it appears) and *Claris Works* is that they both work in 'preview mode' automatically – that is, you see the page exactly as it will be printed. Programs like *Microsoft Word*, on the other hand, default to 'text entry' mode which, while displaying things like page breaks, doesn't show how multiple-column documents will appear.

It's perfectly possible to switch into preview mode within these packages, of course, but this slows things down considerably – the programs weren't optimised for working in this mode.

If you're interested in formatting documents like this, you may find that none of the word processors on the market is really up to the task. In this case, you should consider a low-end DTP package such as *Aldus Personal Press* or *PublishIt Easy*, both of which easily outstrip even the best word processors in page makeup features – but, of course, aren't as good at word processing.

Small is beautiful

If you're running a PowerBook or a low-end Mac such as a Classic, one of your main considerations is going to be how much memory the program requires to run. All of the integrated packages have been designed with memory economy in mind, and so all should run happily on Macs with only a little spare RAM – *Claris Works* asks for just 900K, *Microsoft Works* for 1Mb (1,024K), and both will work if given less than that (although performance will suffer). The dedicated packages, on the other hand, are rather more greedy – 1Mb is the absolute minimum for most of them. Also worth remembering if you're using a PowerBook is that the integrated packages are designed to access the hard disk as little as possible, which should save on battery life.

The other size consideration is how much space on your hard disk the word processor and its associated files will take. Although the smallest hard disk now shipped with any Mac is 40Mb, there are plenty of users out there with 20Mb devices, and even 40Mb doesn't go very far by the time you've installed your System and put a few extra fonts in place. For this reason, some word processors – such as *Microsoft Word* – now include a special installation option for PowerBooks which uses as little hard disk space as possible (the Word PowerBook installation also puts a battery indicator on the menu bar).

There are even dedicated programs – such as *Nisus Compact* – designed for PowerBooks and low-speed Macs, which attempt to overcome the problem faced by many of the mainstream programs, which is that – by and large – the more power a program has, the slower it will be.

A spelling checker is a fairly basic add-in to any word processor – these days they're even present in spreadsheets and databases.

As always, manufacturers have added extras to keep ahead of the competition. Currently you can expect to find not only a spelling checker but also a thesaurus built in to most of the programs on the market, and at least one (*Word*, yet again) now has a grammar checker. Some spelling checkers will even point out such things as duplicated words ('the cat sat on the the mat', for example).

The spelling checker should not only tell you when it finds a word which is incorrectly spelled, but also give you its guess as to what the word you mis-typed should actually be. *Claris Works* is neat here – its suggestions have command-key equivalents (press **[Command] [1]** for the first word on the list, **[Command] [2]** for the second and so on), so you can perform the whole process without having to use the mouse.

Of course, the main use for spelling checkers isn't to see if your spelling is accurate at all: they're for trying out the names of colleagues, friends or politicians to see what the computer suggests as an alternative. (The editor of **MacFormat**, according to *Word*, is less a Storer and more a stirrer, for example…)

Buying decisions

This article should have given you some idea of what to look for when you're thinking of buying a word processor. Many people will be happy with a very basic package – perhaps even a shareware program such as *MiniWriter* will do– but be warned: once you've used a mega-beast like *WordPerfect* or *Microsoft Word*, it's hard to move back down to anything less. **mf**

Where to get it ▼

Package	Available from	Phone no	Price
Claris Works	Frontline	0256 463344	£229
Microsoft Word	Microsoft	0734 270000	£275
Microsoft Works	Microsoft	0734 270000	£136
MacWrite II	Frontline	0256 463344	£206
Nisus Compact	Softline	081 642 2255	£116
WordPerfect	WordPerfect	0932 850500	£234
MacLink Plus	Principal	0706 831831	£187

Summing up spreadsheets

Anyone who has never used a spreadsheet probably has little idea what one does. But they are very flexible and useful software tools, as Greg Morrison and Simon Cox explain...

Many people's first encounter with a spreadsheet is not a happy one. The first thing you tend to do is look at the manuals – and immediately you're bewildered: they are packed with seemingly incomprehensible information. The manuals describe all the features and functions, but omit to say exactly what a spreadsheet is or what it can do.

Most spreadsheet programs have hundreds of functions that allow information to be manipulated. The small business person, for instance, can use a spreadsheet for forecasting by answering questions like 'How much do I have to sell to pay the bills and keep the bank happy?'

Lists are a classic use of a spreadsheet – plants in the garden, orders from a catalogue, mileage charts for cars that automatically calculate miles-per-gallon, and so on. The ability to search and sort information is ideal for finding all things of a particular type: so if you have a column in a gardening spreadsheet that says when a particular plant needs attention, you sort on the current month and you have an automatic 'to-do' list of all plants that need attention this month.

Another example is trying to sort out the best deal when buying a car. Usually there is a bewildering selection of extras, trade-ins and finance deals offered by different garages. By entering this information into a spreadsheet and manipulating it in the correct way, an answer to the question 'How much is it going to cost me each week?' can easily – and accurately –be found.

TIP

Find out the VAT price by multiplying the original figure by 1.175.
Or, if you have a VAT price, divide it by 1.175 to find the pre-VAT price.

A spreadsheet can also be used to sort out your home finances. A simple spreadsheet can be set up which, when you enter the income for the household, will automatically calculate how much to set aside for bills, savings and so on. This is easy to set up and can help avoid surprises when unexpected bills turn up, as well as helping with budgeting for larger expenses such as the annual holiday.

All you'll ever need

Spreadsheets can be as simple or as complex as you need. They can provide anything from a simple printout of a quote for a client to a fully integrated business information system. Nowadays, the limits are set more by the abilities of the spreadsheet user and less by the capacity of the machine.

Once mastered, however, a spreadsheet is probably the most flexible and useful tool available on personal computers. So over the next few issues – and assuming no prior knowledge of the subject – we will help you to take the first steps to spreadsheet mastery.

First things first

The trick to using a spreadsheet to solve a problem is knowing what functions to use and how to use them. However, before going any further, we must first answer the question 'What is a spreadsheet?'.

Put simply, it's the electronic equivalent of the back of an envelope. Almost everyone has used the back of an envelope to make some notes and calculations, and a spreadsheet can be used in a similar way: this kind of envelope may be larger, more flexible, do all the working out for you and have the ability to print out results neatly, but the basic principle is the same.

The spreadsheet is like a large sheet of squared paper. Each square is called a cell. Along the top of the spreadsheet are usually letters and down the side are numbers. These are used to identify cells, so the top left cell is usually referred to as 'A1', and the third along, fourth down is 'C4'. Into any cell you can enter numbers and characters, whose contents can then be referred to by these labels when performing calculations. To see how this works, we'll start with an example that could have been performed on the back of an envelope: working out the cost of putting up a new fence.

Products to look out for

There are many different products on the market that can be used to produce spreadsheets, each having its own bells and whistles. Integrated packages like *Claris Works* and *Microsoft Works* include a spreadsheet module and provide a simple framework to learn about spreadsheets.

Having gained some familiarity, you may want to buy a large separate spreadsheet package like *Microsoft Excel, Lotus 1-2-3* or *Claris Resolve*. These are the three most popular spreadsheets; they cost more than many integrated packages, but have virtually every feature you could ever want.

Spreadsheet features

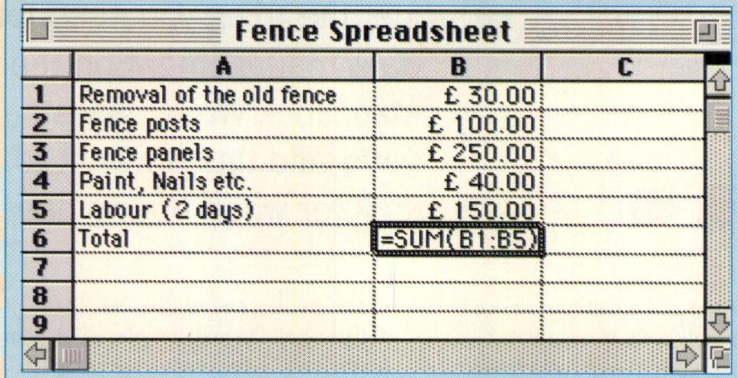
Most spreadsheets offer 'extra' features, either to make things easier or add more flexibility. The main thing to remember when purchasing a spreadsheet is that you will use 1 per cent of the functions 99 per cent of the time. Most spreadsheet users do little more than add up lists of numbers and format them for printing. If you have a particular application in mind then you may need more features, but generally a basic spreadsheet – such as those provided in integrated packages – does for most purposes. The important thing when working with spreadsheets is to remember that it is only calculating what you have asked it to do. Planning how you will use the spreadsheet will help in spotting any errors in your calculations.

Easy steps to spreadsheeting

There are three simple rules for working with spreadsheets:

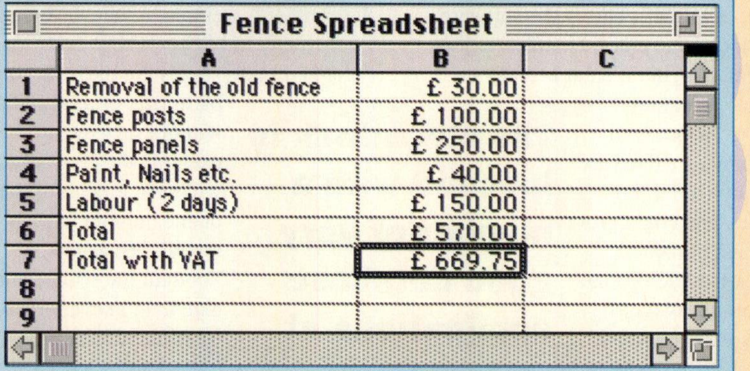
1. Plan your spreadsheet before you start. (You can even use a spreadsheet for this...)
2. Play with spreadsheets, modify them as you go and constantly check your results. A well-designed spreadsheet can save a vast amount of time, but an incorrect one can cost you a lot of time, effort and money.
3. Do not be afraid to throw away a spreadsheet and start again. Having gone through the exercise once, you will learn how to produce a better spreadsheet the second time round. It can take longer to 'fix' a spreadsheet than to start again with a better design.

Creating a simple worksheet



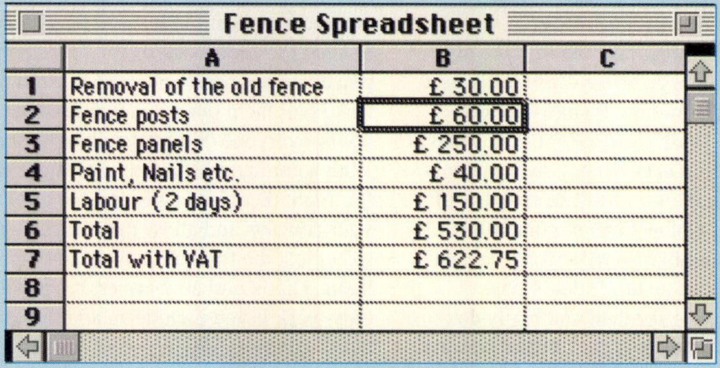
	A	B	C
1	Removal of the old fence	£ 30.00	
2	Fence posts	£ 100.00	
3	Fence panels	£ 250.00	
4	Paint, Nails etc.	£ 40.00	
5	Labour (2 days)	£ 150.00	
6	Total	=SUM(B1:B5)	
7			
8			
9			

This is how you would set about our new fence example (see main text). '=SUM(B1:B5)' is a formula stored in cell B6. When it is evaluated, the cell will display the *result* of the formula...



	A	B	C
1	Removal of the old fence	£ 30.00	
2	Fence posts	£ 100.00	
3	Fence panels	£ 250.00	
4	Paint, Nails etc.	£ 40.00	
5	Labour (2 days)	£ 150.00	
6	Total	£ 570.00	
7	Total with VAT	£ 669.75	
8			
9			

...here, '=SUM(B1:B5)' has been evaluated. It means 'total the figures in cells B1-B5', which is what B6 is now showing. B7 shows the result of a similar calculation to include VAT...



	A	B	C
1	Removal of the old fence	£ 30.00	
2	Fence posts	£ 60.00	
3	Fence panels	£ 250.00	
4	Paint, Nails etc.	£ 40.00	
5	Labour (2 days)	£ 150.00	
6	Total	£ 530.00	
7	Total with VAT	£ 622.75	
8			
9			

...if cell data changes, so will the results of calculations made by any formula which refers to that cell. This means you can run 'what if' experiments and see how they affect the totals

Step 1: Write down all the things that need to be charged for, and next to those put the costs:

Removal of old fence	£ 30.00
Fence posts	£ 100.00
Fence panels	£ 250.00
Paint, nails etc	£ 40.00
Labour (2 days)	£ 150.00

Step 2: Calculate the total cost:

Total	£ 570.00

Step 3: Add in VAT at 17.5 per cent

Total	£ 669.75

To use a spreadsheet to work out the calculations, all the information can be entered as above, but instead of you having to calculate the total the computer can do it for you. The cell next to the 'Total' will have a formula in it instead of just a number. A formula is a command to tell the spreadsheet to do something then show the result of the command instead of the command it self. So the command in the cell would say 'add all the contents of all the cells above me together and show the result'. Looking at our example (top of page), you can see that the values to be added are in cells B1 to B5, so one way to do this is to enter a command like '=B1+B2+B3+B4+B5'.

However, it's more elegant to use the SUM function, which adds together all the cells named. We've used '=SUM(B1:B5)' – that is, add together the values in all cells between B1 and B5. We could have said '=SUM(B1, B2, B3, B4, B5)', but this can be error-prone with long lists of numbers. To calculate the total with VAT, we insert into the cell B7 the formula '=B6*1.175'.

The next step is where spreadsheets come in really useful: we can now ask 'what if' questions. For example, 'How much would it cost if I could get some fence posts costing £60 instead of £100? Simply replace the £100.00 with £60.00 and the spreadsheet automatically recalculates itself to reflect the change.

This is all very simple, but does show the potential of spreadsheets. In future we'll look at how to set up more complicated financial models – if you've any specific requests or questions, do write in. **mf**

Jargon Busters

Worksheet: the whole area where the data is entered and the calculations are performed is a worksheet

Cell: a square on a worksheet where data and calculations are stored

Reference: each cell has a specific position on a worksheet, referenced by a letter to represent the column and a number to represent the row

Formula: a calculation stored in a cell. When the cell is evaluated, it shows the *results* of the calculation

Function: used in formulas to allow complex calculations. A function takes an input value and returns a result. eg LEN("Mac") would return 3, as the LEN function returns the length of the string "Mac"

Chart: many packages allow data to be displayed as a graph or histogram. These are all referred to as charts

Name: it is possible to name a group of cells. This helps when designing and testing a spreadsheet as it is easier to spot a wrong name than a set of incorrect cell references

Format: a cell's data can have a format associated with it, specifying how the data will be displayed – eg. 42 could be formatted as currency £42.00 or as a decimal 42.00

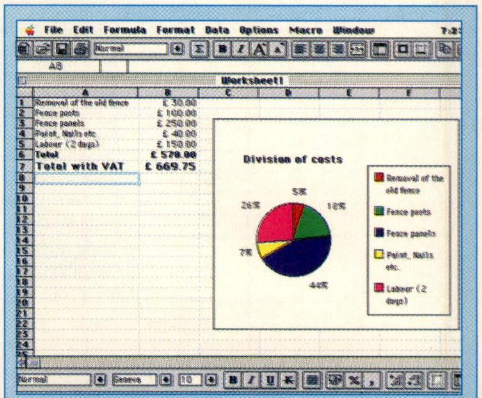
Microsoft Excel: the power user's choice

Although the spreadsheets provided with programs such as *Claris Works* and *Microsoft Works* are perfectly reasonable, stand-alone spreadsheets offer many extra benefits.

Probably the most fully-featured of them all is *Microsoft Excel 4.0*, which has a spreadsheet market share of around 90 per cent on the Mac. It offers many built-in functions to make life easier for you, such as:

- Automatic formatting of tables – you enter the data, select the type of table you want and *Excel* will then automatically lay out and format the information for you.
- Built-in chart editor. *Microsoft Graph* is built in to the package – so you can easily create graphs and charts from your data.
- Customisable toolbars. *Excel* places frequently-used commands on a toolbar so that you can access them with a mouse-click, rather than having to go through numerous menus.
- *Excel* also has a powerful 'macro' command language – which allows you to automate tasks by writing simple programs.

Of course, all this power doesn't come cheap: *Excel* costs £405, which is more than an entire integrated package. But for true power, they don't come better than this.



	A	B
1	Removal of the old fence	£ 30.00
2	Fence posts	£ 100.00
3	Fence panels	£ 250.00
4	Paint, Nails etc	£ 40.00
5	Labour (2 days)	£ 150.00
6	**Total**	**£ 570.00**
7	**Total with VAT**	**£ 669.75**

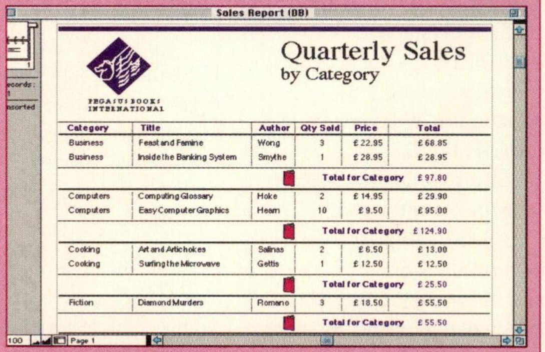
Microsoft Excel is such a fully-featured package that it has a 90 per cent share of the Mac spreadsheet market

Beyond the box file...

A database is a versatile, powerful tool, and may be just the thing you need for data management on the Mac. Jack Weber gives hints and tips on what to look for when buying one

Whatever the reason you bought a computer in the first place, sooner or later you'll want a database. It may be the day when that bulging address book finally self-destructs, scattering cards and slips of paper everywhere. It may be the day you search your record collection from Abba to ZZ Top and still fail to find that elusive heavy metal rendition of 'My Way'. It may simply be the day when you switch on the Mac and think 'I bet it would be useful to have a database in here'.

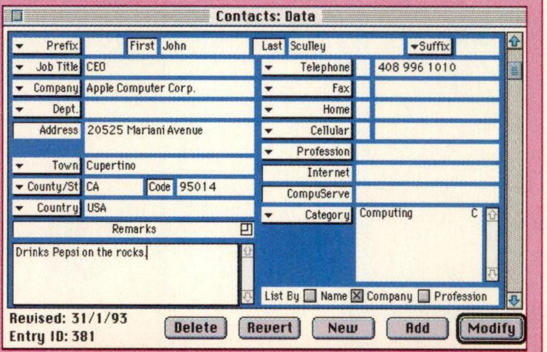
In business, databases are vital for everything from keeping track of invoices to managing maintenance schedules. Even in the home, once you've used one it's hard to see how you ever did without it. Sadly, databases can also be confusing, expensive and surrounded by an impenetrable wall of jargon.



Quarterly Sales
by Category

Category	Title	Author	Qty Sold	Price	Total
Business	Feast and Famine	Wong	3	£ 22.95	£ 68.85
Business	Inside the Banking System	Smythe	1	£ 28.95	£ 28.95
				Total for Category	£ 97.80
Computers	Computing Glossary	Hoke	2	£ 14.95	£ 29.90
Computers	Easy Computer Graphics	Hearn	10	£ 9.50	£ 95.00
				Total for Category	£ 124.90
Cooking	Art and Artichokes	Salinas	2	£ 6.50	£ 13.00
Cooking	Surfing the Microwave	Gettis	1	£ 12.50	£ 12.50
				Total for Category	£ 25.50
Fiction	Diamond Murders	Romano	3	£ 18.50	£ 55.50
				Total for Category	£ 55.50

Integrated packages, like *ClarisWorks*, are a very cost-effective way to get a database. All the integrated programs now available include a flat-file database module. Some are fairly basic, but the better ones are easily capable of handling serious business tasks



Prefix:
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Category: Computing
Remarks: Drinks Pepsi on the rocks.
List By ☐ Name ☒ Company ☐ Profession
Revised: 31/1/93
Entry ID: 381

Address Book Plus is an example of a powerful but specialised flat-file database. It works equally well on-screen or as a way to produce printed address lists in a wide range of formats from index cards to personal organiser pages to envelopes

Strictly speaking, when you buy an application like *FileMaker Pro* or *Address Book Plus*, you're not buying a database, but a database management system, or DBMS. This is the software that helps you to enter, arrange, retrieve and print data, but it's not actually an essential part of any database. In fact, you may not need a database application at all. For example, you could produce a list of names, addresses and telephone numbers in any word processor, then use its **Find** command to look people up. The result will be simpler, faster and cheaper than buying a dedicated database program. It just won't be so sophisticated.

The Macintosh is blessed with a number of very good database applications at all levels

Many people make the mistake of thinking that a database is primarily used to store information. It isn't – a cardboard box is all you need for that. What a database does is to allow you to manipulate information – sort it, select parts of it, look for connections or similarities within it, summarise it, perform calculations on it and so on. If that's what you're looking for then you really do need a database program. But which one?

The Macintosh is blessed with a number of very good database applications at all levels. But choosing the right one really does depend on knowing quite accurately what you'll want to do with it and what the different products are capable of. That's when the jargon barrier descends. Eager to prove the superiority of their product, software publishers will be keen to tell you that it offers indexed fields or many-to-many relations, but they're not so good at describing just what it is and isn't suitable for.

Some of the technical stuff can safely be ignored until you need it, but a few things really do matter. First of these is the terminology of files, records and fields. These are the basic building blocks of any database. Think of a card index for analogy – you might have one box to keep cards with peoples' names and addresses, and another box for details of all the matches played by your football team. In computer terms, each box is a separate file, while each card is a separate record. All the records within one file have the same basic format, only the content is different, while different files usually have completely dissimilar records. Finally, fields are the little compartments of information within every record. For example the People file will need a field for the phone number in each record, just as the Football file will need a date field in every record.

One of the most important factors in setting up a database is planning how you want to divide up the information. For instance, with a non-computerised card index you may decide to keep the address cards for your team players in a separate block to make it easier to pull them out when you need to notify everyone of a forthcoming fixture. With a computer database you might prefer to put them into a general file of all your contacts and allow the computer to select just the football players among them. That's probably easier, but it will only work if you include an additional field to identify which people are players.

Getting complicated

Deciding these things can be far more complicated than it appears. For instance, your Contacts file may contain another field to indicate those people you normally send Christmas cards to. If that includes some of the football players, then you'd want them all in one file so that you can create Christmas card lists and team lists with equal ease. Then again, you may want your records for team members to include football-specific information such as a list of the matches they've played in. If so, everyone from Auntie Ethel to the bank manager has to have space for a Matches Played list on their records too.

So, what do you do? You could, of course, set up separate files for every purpose – one for Christmas cards, one for

What is a database, anyway?

A database is any collection of data – a catalogue of home video recordings, a list of names and addresses, a record of bills received and payments made, and so on. The details are up to you, but it should be something that's made up of similar types of information. In general, if you can arrange something in the form of a table or list, you can treat it as a database. But without the right kind of software to manage the system, you might as well stick to concertina files.

team players, one for business contacts, and so on. But what a time waster – you'd be entering some people two, three, or more, times, duplicating match details all over the place and, chances are, you'd end up abandoning the whole thing and going back to the card box and well-thumbed diary.

It was in order to deal with problems like this that database designers came up with ways to link, or relate, data from several different files. In this way you can set up as many distinct files as you need, but never need to duplicate any information because it is automatically pulled in from the other files. Databases of this sort are usually, though not entirely accurately, called relational. The ones that don't let you do this are called flat-file databases.

Deciding which you need is one of the most fundamental things to sort out before buying a database program, and it's certainly the one thing that causes more confusion than anything else.

Sticking for now with the football example, suppose you had one file for games and one general file for people. You could enter the players' names for a forthcoming fixture into a record in the Football file. A relational database program could then automatically look for matching names in the People file and list all their telephone numbers on the Football record, even though the information was stored in another file. You wouldn't need to add an extra field to distinguish football players from the rest, nor would you need to clutter non-players' records with irrelevant fields.

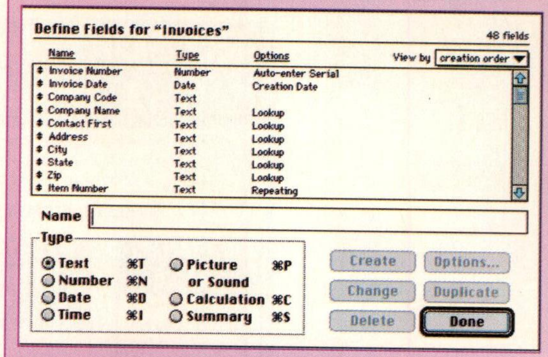
Price difference

Seems clever? It is, but there's a price to pay. And it's likely to be at least £200 higher than the price you'd pay for a flat-file product. It's also much more complicated than the flat-file approach. There are several extremely powerful relational database programs available for the Mac – *Omnis* and *4th Dimension*, for example. But you'd need to devote several weeks just to learning how they work and several more to producing a finished database. For businesses aiming to create customised management systems that sort of investment is perfectly justifiable. For smaller outfits and private users the best advice is to avoid the really serious relational programs unless you firmly believe that going somewhere is much more fun than arriving.

Fortunately, the alternative doesn't have to be the electronic equivalent of a card index. One possibility is to go for a cheaper and simpler relational application, such as *Helix Express* – it doesn't have all the programming power of the heavyweights but it's not short of features. Another is to use *FileMaker Pro*, which is basically a flat-file program but does provide one simple form of relational link. This allows you to look up data from another file provided that there is only a single matching record in the second file. For example, if you enter a John Smith into an Invoice file, *FileMaker* can automatically find his address from a Customer file. But if you enter Norfolk into a Sales file, it won't be able to look up and display a list of all the customers who live there.

If you decide that you don't need anything even slightly relational, the choice opens up dramatically. In fact, most database applications are flat-file programs. Some of these come as part of integrated packages such as *Microsoft Works* or *ClarisWorks*, but the majority are specialised applications specifically designed for handling address lists, bibliographic information and so on. They're often quite cheap, but the best of them are powerful and well-designed tools.

Whatever your final choice, if it's been made wisely, you'll end up with one of the most useful and versatile of computer applications. **mf**



Define Fields for "Invoices" 48 fields

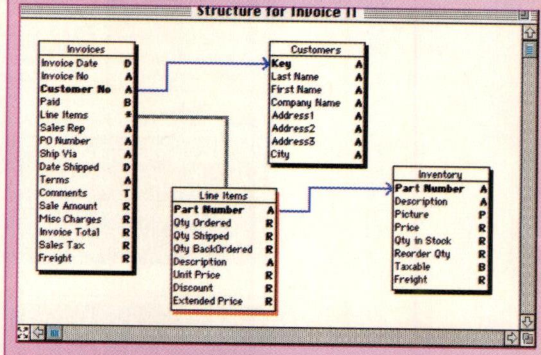
View by creation order

Name	Type	Options
Invoice Number	Number	Auto-enter Serial
Invoice Date	Date	Creation Date
Company Code	Text	
Company Name	Text	Lookup
Contact First	Text	Lookup
Address	Text	Lookup
City	Text	Lookup
State	Text	Lookup
Zip	Text	Lookup
Item Number	Text	Repeating

Name

Type

Setting up the fields in a *Filemaker Pro* database. The types of fields that you can specify, and the flexibility in formatting and using them vary from one application to another. Increasingly though, you can include pictures, sound and *QuickTime* movies in database records



Structure for Invoice II

Invoices	
Invoice Date	D
Invoice No	A
Customer No	A
Paid	B
Line Items	⁑
Sales Rep	A
PO Number	A
Ship Via	A
Date Shipped	D
Terms	A
Comments	T
Sale Amount	R
Misc Charges	R
Invoice Total	R
Sales Tax	R
Freight	R

Customers	
Key	A
Last Name	A
First Name	A
Company Name	A
Address1	A
Address2	A
Address3	A
City	A

Line Items	
Part Number	A
Qty Ordered	R
Qty Shipped	R
Qty BackOrdered	R
Description	A
Unit Price	R
Discount	R
Extended Price	R

Inventory	
Part Number	A
Description	A
Picture	P
Price	R
Qty in Stock	R
Reorder Qty	R
Taxable	B
Freight	R

The sort of thing the professionals use. This is the structure of a relational database created with *4th Dimension*. Each box represents a separate file with its fields listed. The arrows show relational links that have been set up between the different files

Jargon Busters

DBMS: Database Management System. The application program that you buy isn't really a database – it doesn't contain any data – but a DBMS designed to handle the setting up, layout and use of whatever databases you create with it

Field: A container for one item of information. If you ever need to arrange or find records according to a particular item, it should have its own field. For example, you'd need separate fields for First and Last names if you want to be able to sort the records by surname

File: A collection of records all of which are stored together and can be handled together in the same way. If some of the records require fields which are irrelevant to the rest of the file, this often suggests that they should be made into a separate file

Flat-file: A database that's organised like a simple card index with one sequence of similar records

Record: The basic unit of any database, a record is the equivalent of a single card in a card index. Within a file, all the records will have the same format but each one will contain different data

Relational: A database which allows you to link, or relate, common information held in more than one file, so that each file can access data from any of the others

Product finder

	Available from	Phone no	Price
Address Book Plus	**Axiom**	**081 941 8898**	**£94**
Claris Works	**Frontline**	**0256 463344**	**£229**
Filemaker Pro	**Frontline**	**0256 463344**	**£323**
Helix Express	**Helix Technologies**	**0642 343455**	**£328**
4th Dimension	**ACI**	**0625 536178**	**£816**
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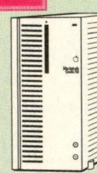

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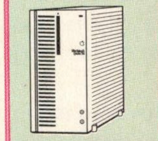

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Questionnaire

TWENTY QUESTIONS

With **MacFormat** we've attempted to create a new kind of Macintosh magazine. Since there's nothing like it currently available, we've had to make a few guesses about the type of magazine you want – and this is your chance to put us right.

Every questionnaire we receive will be read and analysed, so you can be sure that we'll be taking notice of your opinions. So please spare five minutes to fill it in, and post it back to us at: **MacFormat Questionnaire**, 30 Monmouth Street, Bath BA1 2BW. We'll be picking ten questionnaires at random and giving them free subscriptions to the magazine, so it could be worth your while!

PART ONE: YOUR MAC

1. What model(s) of Mac do you own?

a ☐ 128/512/Plus
b ☐ Classic/Classic II/Performa 200
c ☐ LC/LC II/Performa 400
d ☐ Mac IIsi
e ☐ Mac II/IIx/IIfx
f ☐ Mac IIci/IIcx
g ☐ Mac IIvx/IIvi/Performa 600
h ☐ Mac Quadra
i ☐ Mac Portable
j ☐ Mac Powerbook/Powerbook Duo
k ☐ Other

2. How much memory does your Mac have? (You can find this out by selecting **About This Macintosh** or **About The Finder** from the menu)

.... K

3. What System do you run? (You can find this out by selecting **About this Macintosh** or **About the Finder** from the menu)

a ☐ System 7
b ☐ System 6
c ☐ System 5 or earlier
d ☐ A/UX

4. Is your Mac networked to other Macintoshes?

a ☐ Yes
b ☐ No

5. Is your Mac connected to any of the following?

a ☐ CD-ROM drive
b ☐ modem
c ☐ StyleWriter or other inkjet printer
d ☐ LaserWriter or other laser printer
e ☐ scanner
f ☐ joystick
g ☐ musical instrument

PART TWO: THE MAGAZINE

Please consider the following parts of the magazine and indicate whether you would like to see more, less or the same amount of them in future issues. Remember that there is only a limited amount of space so if you want more of one thing there will have to be less of another!

	More (6)	Same (7)	Less (8)
News	a ☐	a ☐	a ☐
Games reviews	b ☐	b ☐	b ☐
Shareware reviews	c ☐	c ☐	c ☐
Reviews of software under £150	d ☐	d ☐	d ☐
Reviews of software over £150	e ☐	e ☐	e ☐
Product guides	f ☐	f ☐	f ☐
Games hints	g ☐	g ☐	g ☐
Software tutorials	h ☐	h ☐	h ☐
Beginner's guides	i ☐	i ☐	i ☐
Education	j ☐	j ☐	j ☐
CD-ROM reviews	k ☐	k ☐	k ☐
DTP coverage	l ☐	l ☐	l ☐
Networking	m ☐	m ☐	m ☐
Spreadsheets	n ☐	n ☐	n ☐
Budget DTP	o ☐	o ☐	o ☐
Graphics coverage	p ☐	p ☐	p ☐
Competitions	q ☐	q ☐	q ☐
Music coverage	r ☐	r ☐	r ☐

9. What other magazines do you read regularly?

a ☐ MacUser
b ☐ MacWorld
c ☐ MacWorld (US)
d ☐ MacUser (US)
e ☐ Personal Computer World

For the next two questions, if you take **MacFormat** as a base of 100%:

10. What rating would you give MacUser?

................................%

11. What rating would you give MacWorld?

................................%

12. The following is a list of possible changes to the magazine. Please tick those that you think would be a good idea or that would make you more likely to buy it.

a ☐ On sale monthly
b ☐ High density (1.44Mb) cover disk at £3.95
c ☐ Regular beginner's guides supplements
d ☐ Demos of commercial programs on the cover disk (besides games)
e ☐ Regular hints and tips booklets

13. Where did you hear about **MacFormat**?

a ☐ Through the post
b ☐ In 'The Edge'
c ☐ In another magazine
d ☐ Just saw it in the newsagent
e ☐ Word of mouth
f ☐ Saw the *Lemmings* demo
g ☐ Through e-mail

PART THREE: ABOUT YOU

14. Where do you use your Mac?

a ☐ At home, for personal use
b ☐ At home, I'm self-employed
c ☐ In the office
d ☐ At school/college

15. Do you own your own Mac?

a ☐ Yes
b ☐ No

16. How old are you?

a ☐ Under 18
b ☐ 18-25
c ☐ 25-40
d ☐ Over 40

17. Approximately how much do you earn?

a ☐ Under £5,000
b ☐ £5,000-£9,999
c ☐ £10,000-£14,999
d ☐ £15,000-£19,999
e ☐ £20,000-£29,999
f ☐ Over £30,000

18. In an average year how much do you spend on Mac software, either personally or as company expenditure which you specify?

£........................

19. In an average year how much do you spend on Mac hardware, either personally or as company expenditure which you specify?

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20. What is your name and address? (Leave this blank if you wish, but then you can't win the free subscription!)

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Contact phone number ....

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Now enter details of your user group (maximum 30 words). Remember to include a contact phone number or details of the meeting venue and times.

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Please note that we reserve the right to refuse entries.

We want... info

User groups can be an incredibly useful resource for both novice and experienced Mac users alike.

Working away on your own at home isn't just lonely – it's counter productive. By meeting like-minded Mac owners, you can often find the solutions to problems that have been bugging you for weeks. You can also catch up on the latest gossip from the Macintosh community (some of which is so scurrilous that we couldn't possibly print it in **MacFormat**), swap shareware and PD (Public Domain) software, and generally share your knowledge and experiences with others.

The scale of user groups ranges from a handful of people meeting once a month in a pub, to groups which have their own bulletin boards and PD libraries. Indeed some of the larger groups are sub-divided into lots of different special interest groups – including groups for business, DTP, graphics and so on.

Unfortunately, up until now there has been no 'central registry' of user groups – so it's been difficult for people to find out where their nearest group is. And that's where we come in…

In the coming issues we will be listing details for all the user groups we hear about. Of course, to do that we need to be told about all of these groups. So if you're involved in a Mac user group of any kind, please fill in the form on the left and either post or fax it back to us.

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- Describe your Macintosh equipment clearly and concisely. If it's got an add-in such as an accelerator board, say so.
- It helps if you include the area that you live in as well as your phone number in the advert – a cheap colour monitor isn't a bargain if it's 300 miles away.
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Practical Utilities

Utilities are handy little tools designed to improve your productivity. Ian Wrigley reviews an address book and a Mac protection program

Every issue, we'll be looking at the neatest and most useful utilities available to help you get the most out of your Mac – and we'll also take a pot-shot at some of the turkeys that should never have escaped from the programmer's back room. This issue, we have the new version of *Dynodex*, a fully-featured address book from Portfolio Systems, and *MacPrefect* from Hi Resolution, which allows you to protect your Mac from alteration by prying little fingers.

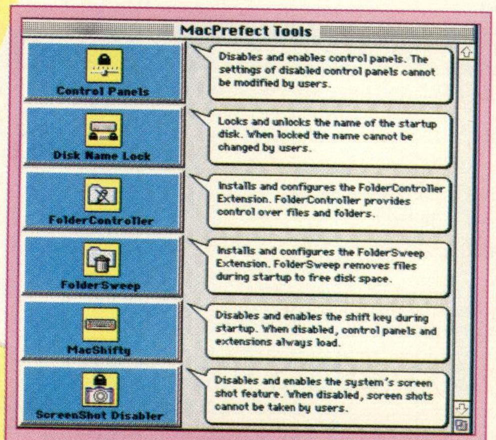
MacPrefect

All Performas are shipped with – and anyone can buy – *AtEase*, Apple's Mac protection program which limits what people can do on the machine. Unfortunately, *AtEase* has one major drawback: it dispenses with the Mac's user interface. While this is fine for small children, who would probably struggle with the desktop metaphor anyway, many educational establishments (and others) feel that what they really need is a way of protecting their Macs from customisation and software piracy, while retaining a user interface which has taken Apple Computer over ten years to develop, and which is (rightly) judged to be the best of its kind in the world.

Help is now at hand in the form of *MacPrefect*, from Hi Resolution. Using this program, the Mac still appears just like a normal Mac – until a user tries to do something which the administrator doesn't want them to do. This could include running an application from a floppy or, worse, trying to pirate an application from the hard disk to a floppy disk.

The program provides a wide range of protection features. It can:

- Prevent files from being added to, or removed from, a folder.
- Prevent files from being copied to floppy disk.
- Determine which applications can run.
- Auto-delete files in a specified folder – eg, a student's work folder (see picture above).
- Disable **Control Panels** so that settings cannot be altered.
- Prevent a hard disk's name being changed.
- Disable the **[Shift]** key during startup of System 7, so **System Extensions** cannot be prevented from loading.
- Disable taking screenshots.



Disables and enables control panels. The settings of disabled control panels cannot be modified by users.

Locks and unlocks the name of the startup disk. When locked the name cannot be changed by users.

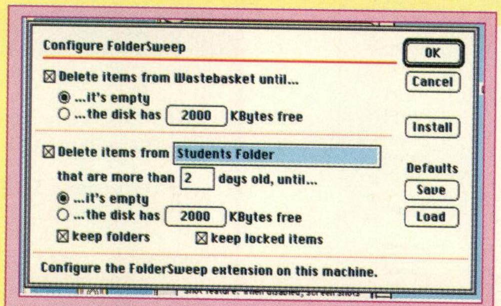
Installs and configures the FolderController Extension. FolderController provides control over files and folders.

Installs and configures the FolderSweep Extension. FolderSweep removes files during startup to free disk space.

Disables and enables the shift key during startup. When disabled, control panels and extensions always load.

Disables and enables the system's screen shot feature. When disabled, screen shots cannot be taken by users.

This is *MacPrefect's* main screen, from where the wide range of security options can be controlled



Configure FolderSweep

☒ Delete items from Wastebasket until...
● ...it's empty
○ ...the disk has 2000 KBytes free

☒ Delete items from Students Folder
that are more than 2 days old, until...
● ...it's empty
○ ...the disk has 2000 KBytes free
☒ keep folders ☒ keep locked items

Configure the FolderSweep extension on this machine.

MacPrefect's **Folder Sweep** option allows you to delete files automatically after a certain amount of time, to stop the hard disk filling up with old, unwanted files

All of this is done in a very user-friendly way from a controlling application which is password-protected, so that only authorised people can alter a Mac's settings.

A typical scenario for the use of *MacPrefect* is where students are allowed to use some of the applications on the Mac's startup disk, can save their files to a designated folder, but are not allowed to do anything else. Setting the Mac to allow these actions is the work of about two minutes, after which the system manager can feel fairly confident that it would take a very determined student to do anything they shouldn't.

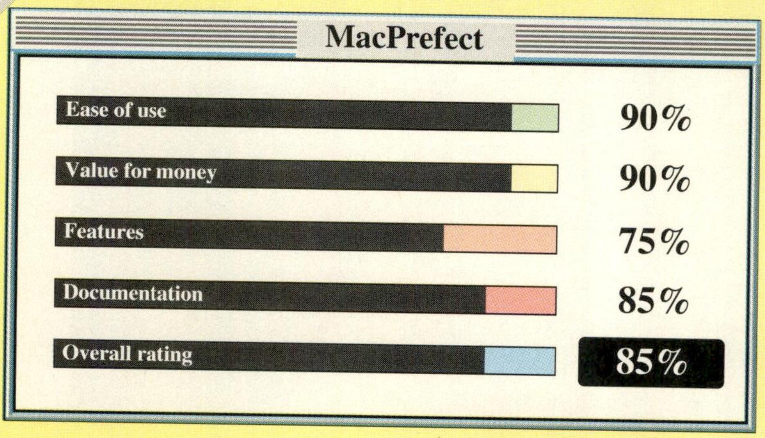
The verdict

The only real limitation of the program that we found during testing is that it's possible to start the Mac up from an external System disk, at which point all the protection is bypassed. However, in reality this isn't something that is likely to cause too many problems – indeed, whatever protection program you use it's unlikely that you will be able to prevent this from happening. Other than that, we couldn't break through the protection during the test period – and we would certainly feel confident using *MacPrefect* to keep Macs in a school or college in good order. What's more, Hi Resolution has a reputation for good technical support and helpful service.

If you're a system manager and you find yourself spending half your time restoring Macs to the state that they were in before users got their hands on them, take a look at *MacPrefect* – you won't be disappointed.

Where to get it

MacPrefect **is available from Hi Resolution – 0892 724050. Prices are on a sliding scale, and range from £41 for one copy down to £16 if you're buying 200 or more. Education purchasers get a 20% discount.**



MacPrefect

Ease of use	90%
Value for money	90%
Features	75%
Documentation	85%
Overall rating	85%

Dynodex

Dynodex has long been a firm favourite with people who prefer a more structured way of entering their data than the freeform likes of *QuickDex*. The package consists of an application and a separate desk accessory (DA). Why the separate DA? Well, although it doesn't have the full range of features present in the main application, the DA takes much less memory to run – so if you've not got loads of RAM in your Mac, you can pull up the DA while you're running another application with less chance that you'll run out of memory. The DA is also faster to load than the main application – so when you want to look up a phone number or address, you don't have to wait for ages while the program loads. Finally, a DA is essential for users of System 6 or below – while System 7 will allow any application to be placed under the menu, previous Systems could only put DAs there.

How to use it

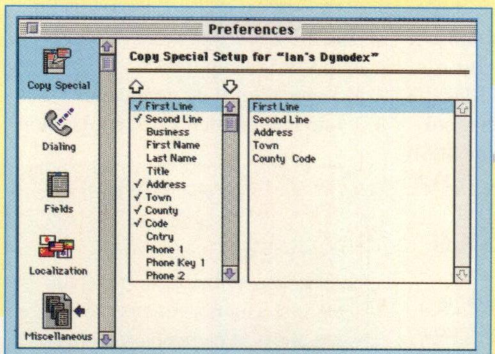
Anyone familiar with previous versions of *Dynodex* will not find many surprises in the basic layout of version 3.0. The DA looks identical, while the application has had a 3D effect added (for users of colour monitors), with attractive coloured buttons and 'indented' text fields.

If you attempt to open a *Dynodex* file created in an older version of the program, you have the option of just opening the file or of creating a backup first. This is because, once you've saved a file in *Dynodex 3* format, you can't then open it in previous versions.

Once open, you have several fields in which to enter data. These are standard things such as business name, person's name and title, address and so on. Up to four phone number fields are available, and each has a separate phone key field, so that numbers can be categorised as fax, work, home, portable and so on.

There are also three totally customisable 'key' fields, which you can define to your own requirements. For instance, if you decide that each of your address records will either be 'personal' or 'business', then entering this detail in a key field will allow you to select just one or the other set of addresses quickly – perfect for mail merging (about which more later).

Finally, there's a 'notes' field in which you can, of course, enter anything that you want. It's a scrolling field, so there's plenty of room – in fact, you can enter up to 5,000 characters.



Copy Special Setup for "Ian's Dynodex"

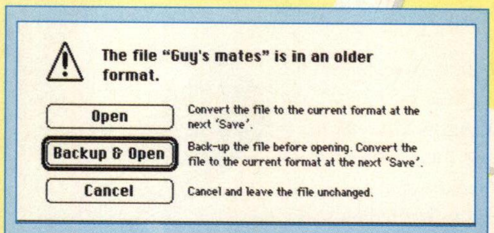
- ✓ First Line
- ✓ Second Line
- Business
- First Name
- Last Name
- Title
- ✓ Address
- ✓ Town
- ✓ County
- ✓ Code
- Cntry
- Phone 1
- Phone Key 1
- Phone 2

First Line
Second Line
Address
Town
County Code

The **Preferences** section has been radically altered in version 3 of *Dynodex*; here's the **Copy Special** section, which allows you to specify which fields should be copied for easy pasting of addresses and suchlike

Finding a record is easy – just hit **[Command]** – **[F]**, type in a portion of the word that you want to search for and hit **[Return]**. A search on my 430-record address book took less than two seconds using the main application, and about one second using the DA – although, of course, both take a few seconds to load up initially.

It's printing where *Dynodex* really excels itself. Not only can you output your records in a conventional way on paper or envelopes, but you can also print to special personal organiser-sized paper. This comes as A4 sheets with three perforated smaller pages per sheet, and although it can take a little time to work out just how to collate the paper so that it feeds through your printer in the right order, the results – double-sided, extremely professional-looking address book pages – are well worth the effort.



The file "Guy's mates" is in an older format.

Convert the file to the current format at the next 'Save'.

Back-up the file before opening. Convert the file to the current format at the next 'Save'.

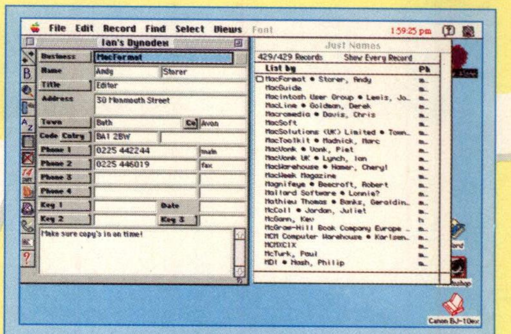
Cancel and leave the file unchanged.

Opening *Dynodex* files created with a previous version of the program results in this dialog box. This is because, once converted to version 3, *Dynodex* files won't be openable in older versions of the program

Enhancements

So far, all of this will be familiar to anyone who's used *Dynodex* before, but the improvements are well worth making the upgrade. First off, there's a **Synchronise Files** option. This is very useful if you have two copies of your *Dynodex* file – for instance, one on your Mac at home and one at work. As the days go by, you'll make changes to your home and work files independently – which means that they will end up out of step with each other. To cure this, **Synchronise Files** takes the two database files and compares each record; if one entry for a record is older than the other, the older entry will be replaced. This way, you can be sure that your database is always up-to-date.

Next comes the mail merge feature. This takes the form of a simple memo-writing program which allows you to mail merge selected records without having to use a dedicated word processor – a process which is always fraught with trouble. This new feature is a godsend to anyone who wants to send memos or letters to a list of people – if you've ever used the mail merge features on a word processor, you'll realise just how useful having it built in to your address book program is.



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The main *Dynodex* application screen. Version 3 has added bas-relief buttons and coloured icons – although these can be turned off to save memory if you want

There are other upgrades too, such as a much improved **Preferences** section, and the ability to copy a set of fields to the clipboard with the **Copy Special** command. You've always been able to copy a label – that is, copy the full address so that it can be pasted into a word processor or whatever – but you can now specify exactly which fields you would like to be included.

Worth the price?

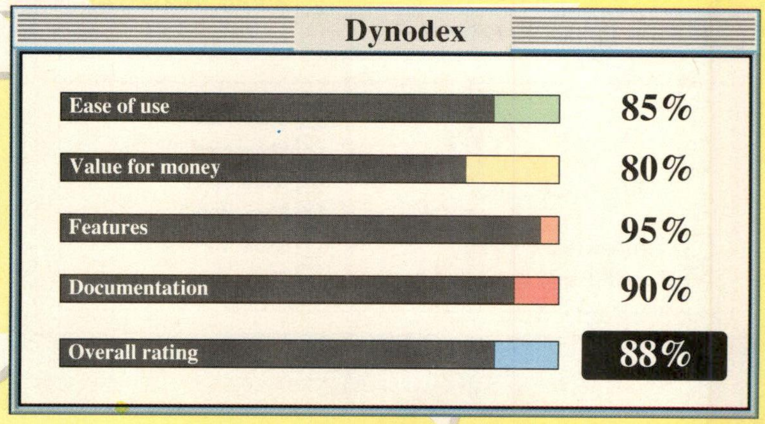
There are, it's true, cheaper address book programs than *Dynodex*. But none offer the same kind of flexibility and power – and, of course, pose value as people see your immaculately printed personal organiser pages.

Dynodex is also available for the PC, and address books can be swapped between the two with no problem. Portfolio Systems is now writing companion programs to *Dynodex* which will provide calendar and 'To do'-type list management – so by the end of the year there should be a full suite of easy-to-use, powerful personal management programs with a common user interface.

Is the program worth the money? Yes, definitely. Highly recommended. **mf**

Where to get it ▼

***Dynodex* is distributed by Computers Unlimited – 081 200 8282. It costs £82 and the special personal organiser paper costs £23 for 100 sheets.**



Mac Beginners

Getting organised

Are you new to the Mac? If so our beginners' guide will soon get you well on your way. Ian Wrigley takes a look at hard drives, floppy disks and a handy utility: *At Ease*

There are few computers easier to use than the Mac, but any piece of equipment – however user-friendly – takes time to get the hang of… and that's where we come in. In the beginners' section in each issue, we'll be examining areas of Macintosh use and giving you hints, tips and explanations to help you really get to grips with your Mac.

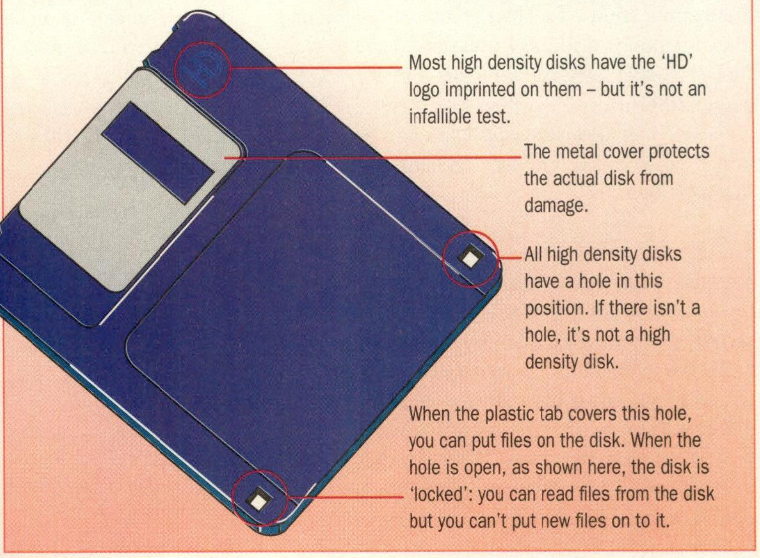
This issue, we're looking at using floppy disks, organising your hard disk, and using a utility which comes with all Mac Performas: *At Ease*. If you don't have a Performa, don't worry – if you think that *At Ease* looks like it might be useful to you, it can be bought for around £40 from any Apple dealer.

Floppy disks

Floppy disks come in two sizes: 3.5-inch and 5.25-inch. You can only use 3.5-inch disks on your Mac; 5.25-inch disks are still used on IBM PCs, although even there the general trend is towards using the smaller, more robust 3.5-inch floppy disks. (There are a couple of devices available commercially which will allow your Mac to use an external 5.25-inch drive, but you're very unlikely ever to need one.)

The 3.5-inch disks themselves come in two different types: double density and high density. This description refers to how much data the disks can store: a double density (DD) disk will hold up to 800K of data, while a high density (HD) disk can store up to 1.4Mb (that's 1,400K). High density disks can be spotted because they normally have the letters HD engraved on them, and also because there are two holes in the casing (see diagram).

The 3.5-inch Mac disk explained



Most high density disks have the 'HD' logo imprinted on them – but it's not an infallible test.

The metal cover protects the actual disk from damage.

All high density disks have a hole in this position. If there isn't a hole, it's not a high density disk.

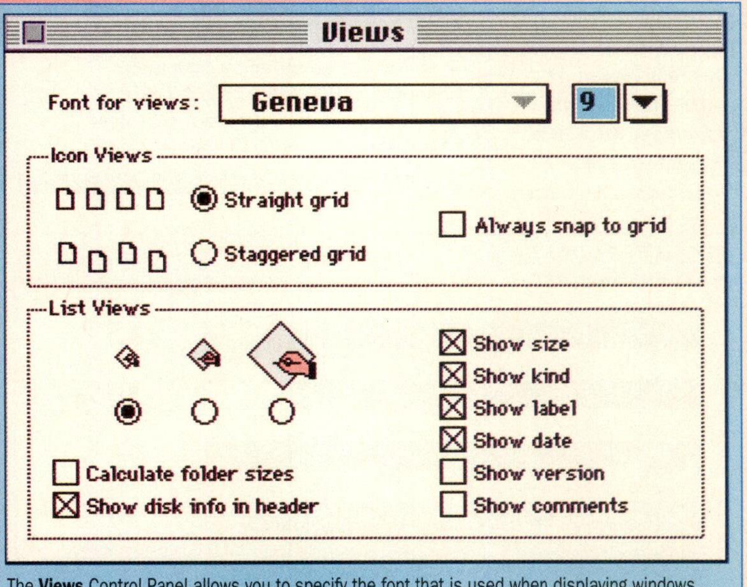
When the plastic tab covers this hole, you can put files on the disk. When the hole is open, as shown here, the disk is 'locked': you can read files from the disk but you can't put new files on to it.

If you intend to write data to a floppy, you must make sure that it's not 'locked'. Locking a disk ensures that data can be read from, but not written to, the disk. To lock the disk, click the small plastic tab up so that the hole in the casing is uncovered (see the diagram). To unlock it, just click the tab down so that the hole is covered.

TIP If your disk drive can't read disks from external sources, but is happy with disks that it's created by itself, then your disk heads have probably moved out of alignment. Problems of this sort can only be cured by an engineer, who will re-align the heads – a task requiring specialist equipment.

Before you use a disk for the first time you must format, or initialise, it. That is, you must prepare it so that it is able to store data. When you insert the disk, you will be presented with a dialogue box which says 'This disk is unreadable: Do you want to initialize it?' and given the option to eject it or initialise it. This is when you will first notice the difference between high density and double density disks – if you've got an HD disk in the drive, you just get one initialise button, whereas if it's a DD disk you can either initialise it as one-sided or two-sided. This is a throwback to the very early Macs, when disk drives were much more primitive and could only write 400K of data per disk. These days, you should always select two-sided (which gives you around 800K of storage capacity).

If you're using *PC Exchange*, the Apple utility which allows your Mac to read DOS-formatted disks, you may also be given the option to format a disk as a DOS device (720K). Don't do this unless you are going to use the disk to transfer data between your Mac and a PC – among other limitations it takes longer for the Mac to read DOS-formatted disks.



Views

Font for views: Geneva 9

Icon Views

● Straight grid

○ Staggered grid

☐ Always snap to grid

List Views

● ○ ○

☐ Calculate folder sizes

☒ Show disk info in header

☒ Show size

☒ Show kind

☒ Show label

☒ Show date

☐ Show version

☐ Show comments

The **Views** Control Panel allows you to specify the font that is used when displaying windows. The default (the font your Mac will choose automatically) is Geneva 9pt

Getting organised

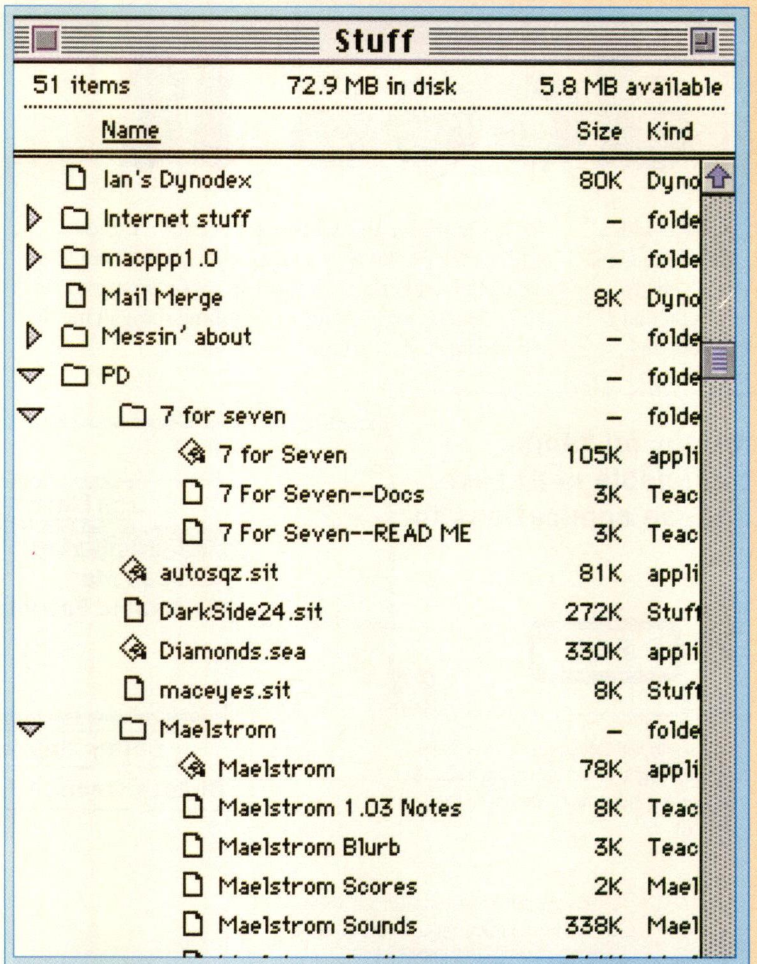
When you first get your Mac, it has very little software on it – so there's no problem finding anything. But as you load it up with more and more stuff – applications, games and files – you'll find that you spend more and more time trying to work out just where you saved that letter, report or whatever. What's required is an organised and sensible method of storing everything in logical places, and with logical names. So here are a few tips which should help you to keep track:

- Keep all of your applications in one main folder. Each application

TIP If you keep getting disk errors (the Mac reporting that it can't read or write files on the disk) it's possible that your disk heads are dirty. A number of companies sell head cleaners, but be aware that you should only use them sparingly. Too often could mean that you actually wear the heads out.

should still reside in its own folder, of course, but it makes sense to keep all of those folders together in one place.

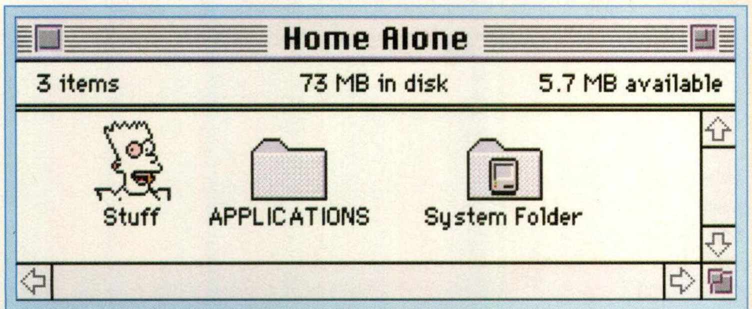
- When you create a document, don't save it in the same folder as the application itself. Instead, create a new folder called something like 'documents', into which you save anything that you create. In fact, it's probably a good idea to create sub-folders within this main folder, so that you can store your documents by category. For example, within the 'documents' folder you could have folders called 'work', 'home', 'accounts', 'schoolwork' and so on.
- Name your files sensibly! A file name may seem perfectly logical at the time, but unless it's reasonably descriptive you'll find that in a couple of months' time you will have no idea what on earth it is. So, don't give your correspondence to the bank names like 'bank 1', 'bank 2', 'bank 3' and so on. Instead, use names like 'bank loan application', 'bank overdraft letter' and so on. If you are writing letters to people (like banks) who refer to your correspondence by date ('I refer to your letter of 22nd November'), put the date as part of the file name. So files will be called things like '22/11/92 bank loan'. That way it's easy to pull up the file that you want.
- Don't litter your desktop with files. This can make it hard to find the one that you want, and folders can easily become hidden by open windows. The desktop should only contain your hard disk icon, Wastebasket icon and perhaps a couple of aliases of frequently-used applications. (An alias is a small copy of an application which sits on your desktop and allows easy access to that application when you click on it.)
- Make sure that your **System Folder** is always on the top level of your hard disk – don't hide it within other folders. And never have more than one **System Folder** on a hard disk – this can confuse the Mac and leads to all sorts of problems.
- If you've loads of icons and folders in a window, you may find it easier to select **View by Name** from the Finder's **View** menu. This will provide you with an alphabetical list of all the window's files and folders.
- Rather than opening a folder to see its contents, if you're in any view other than **By Icon** or **By Small Icon** and you're running System 7, you can click on the small triangle to the left of the folder's icon. This will 'open out' the display and show you the folder's contents. If you hold down the **[option]** key while you click the triangle, any sub-folders will also be expanded out.
- If you'd like a change in how your windows are displayed, go to the **Views** Control Panel (but only if you're running System 7). This gives various options including allowing you to specify what font text should be displayed in. If you check the **Calculate Folder Sizes** box, your Mac will display the size of all the files contained in any folder, in the same way that it displays the size of individual files. Be warned, though, that this could slow your Mac down a little. The default font for displaying detail in windows is Geneva 9pt; again, changing this may make your windows look more interesting, but could have a detrimental effect on your Mac's performance. If you think that your windows are being drawn more slowly than normal, revert to the Geneva font.



51 items 72.9 MB in disk 5.8 MB available

Name	Size	Kind
Ian's Dynodex	80K	Dyno
▷ Internet stuff	–	folde
▷ macppp1.0	–	folde
Mail Merge	8K	Dyno
▷ Messin' about	–	folde
▽ PD	–	folde
▽ 7 for seven	–	folde
7 for Seven	105K	appli
7 For Seven--Docs	3K	Teac
7 For Seven--READ ME	3K	Teac
autosqz.sit	81K	appli
DarkSide24.sit	272K	Stuf
Diamonds.sea	330K	appli
maceyes.sit	8K	Stuf
▽ Maelstrom	–	folde
Maelstrom	78K	appli
Maelstrom 1.03 Notes	8K	Teac
Maelstrom Blurb	3K	Teac
Maelstrom Scores	2K	Mael
Maelstrom Sounds	338K	Mael

By clicking on the triangle to the left of a folder's icon, you can display the contents of that folder without opening a new window



3 items 73 MB in disk 5.7 MB available

My hard disk has just three folders on the top level: one is the **System Folder**, which should always be on the top level, one folder for all my applications, and one for everything else

TIP If someone gives you a high density disk which they can read but which your Mac tells you isn't a Macintosh disk, the chances are that it has been formatted as double, and not high, density. This is only possible if the Mac which formatted it isn't fitted with a floppy drive known as a SuperDrive – and all Macs built in the last six or seven years have SuperDrives as standard. To get around this problem, you have to fool your Mac into believing that the disk isn't a high density disk – and you do this by covering up the hole that tells the drive what kind of disk you're using. So, take a piece of dark adhesive tape and cover up the hole. Make sure that the tape is securely fastened.

Now when you insert the disk, the Mac doesn't realise that it's a high density device, so it treats it like a normal 800K disk – and should be able to read the data. Once you've done this, though, don't keep using the disk – HD disks formatted to 800K aren't very reliable, and you could end up losing your data.

Jargon Busters

Desktop: This is the term used to refer to what you see on the Mac's screen when you're not running a program. It consists of icons for your hard disk, any files you've placed there, whatever windows you have open... plus the Wastebasket

Double-click: Using the mouse, move the pointer over an icon and click the mouse button twice in quick succession. This will open the item you double-clicked on

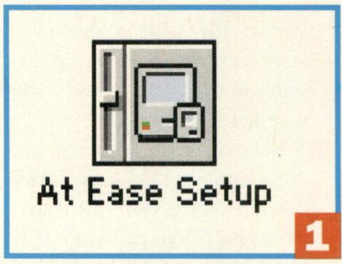
Hard disk: This is a built-in piece of hardware which stores your files, applications and so on. You can erase things from the hard disk whenever you want, but unless you do that they are permanently stored there – even when the computer is switched off.

Icon: An on-screen picture which represents an object – a folder, file, application, the Wastebasket or whatever

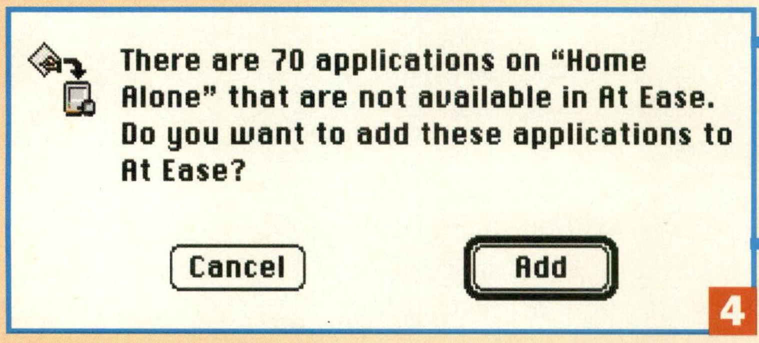
Mac Beginners

Easy does it

If you have a Performa, it will have been bundled with a copy of *At Ease*, a program written by Apple which aims to simplify using the Mac for those who don't want to have to cope with the whole user interface; if you don't have a copy of *At Ease*, it can be purchased from any Apple Centre for around £40. Essentially, *At Ease* replaces the Finder with a simple interface where you just click on a button to launch an application – no messing around opening windows, scrolling through menus and suchlike. Here's how to set it up:


At Ease Setup
1

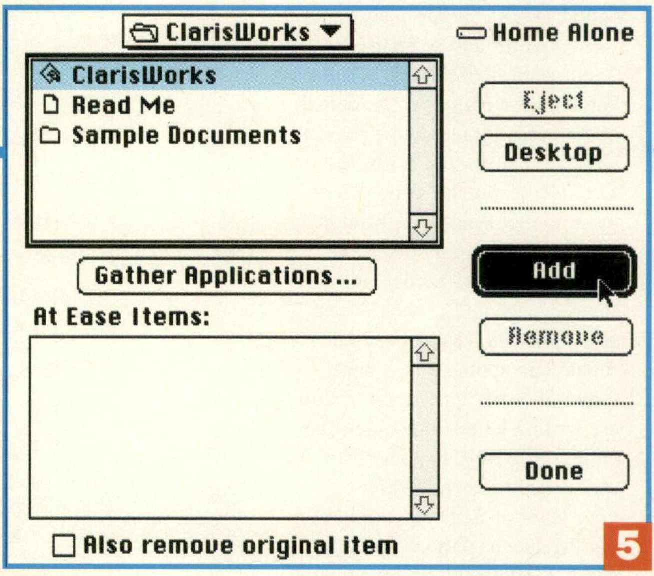
1. To set up *At Ease*, go to the At Ease Control Panel in your Control Panels folder, which is itself in the System folder.



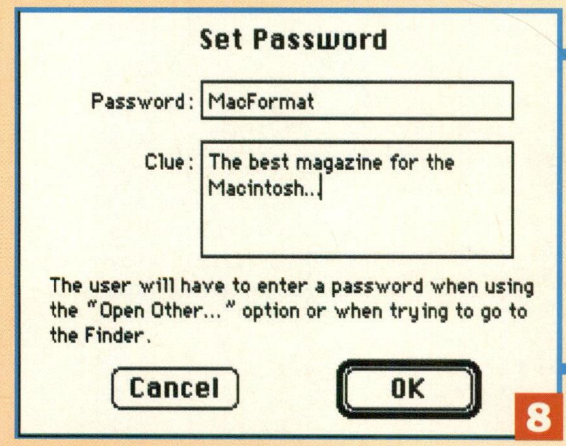
There are 70 applications on "Home Alone" that are not available in At Ease. Do you want to add these applications to At Ease?

Cancel
Add
4

4. ...you may find that there are rather more than you thought. In this case a more sensible approach is needed, so hit **Cancel** on this dialog box.


ClarisWorks
Home Alone
ClarisWorks
Read Me
Sample Documents
Eject
Desktop
Add
Gather Applications...
At Ease Items:
Remove
Done
☐ Also remove original item
5

5. Clicking **Add** an application allows you to specify which applications you want to appear on *At Ease's* window by scrolling through the top window, selecting an application and clicking **Add**.



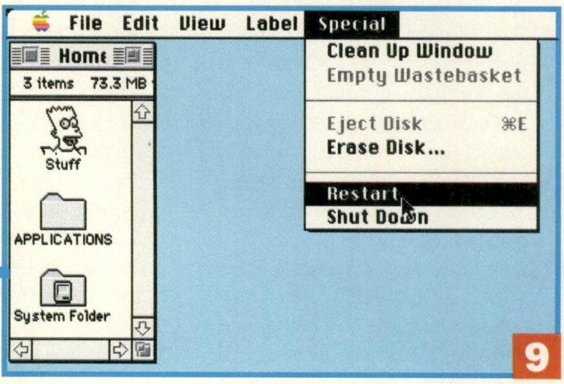
Set Password

Password: MacFormat

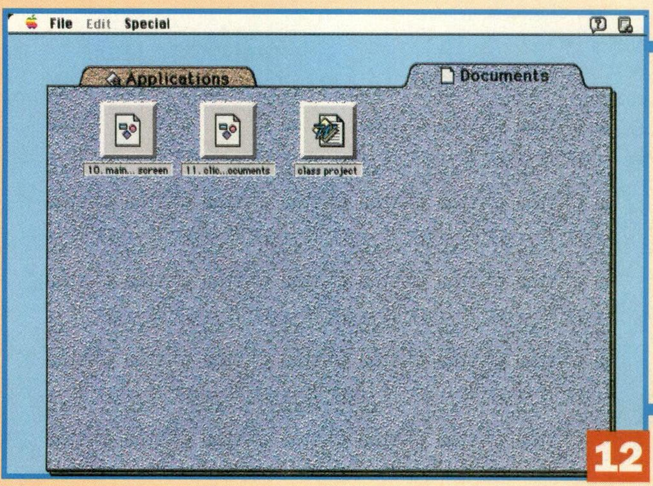
Clue: The best magazine for the Macintosh..

The user will have to enter a password when using the "Open Other..." option or when trying to go to the Finder.

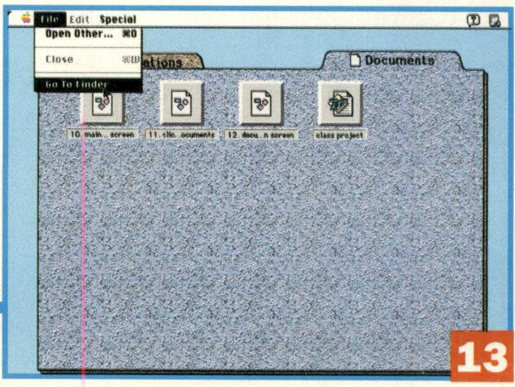
8. If you want to restrict people to just what's available via *At Ease*, click **Set Password**... from the main screen, and enter a password. In case you forget, there's space to enter a clue, too. Do note that if you forget your password, you won't easily be able to exit from *At Ease*.


File
Edit
View
Label
Special
Home
3 items 73.3 MB
Stuff
APPLICATIONS
System Folder
Clean Up Window
Empty Wastebasket
Eject Disk ⌘E
Erase Disk...
Restart
Shut Down
9

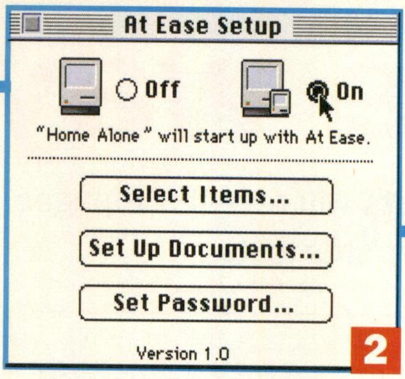
9. Now **Restart** your Mac, and...


File
Edit
Special
Applications
Documents
10. main... screen
11. clic..ocuments
class project
12

12. ...like this.


File
Edit
Special
Open Other... ⌘O
Close ⌘W
Go To Finder
Documents
10. main... screen
11. clic..ocuments
12. docu..n screen
class project
13

13. If you need to go to the **Finder** for any reason, there's a menu item in *At Ease*'s **File** menu which lets you do so, but...

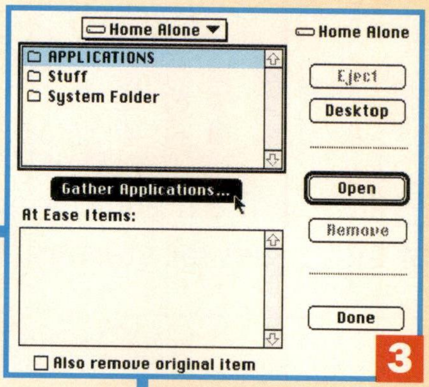

At Ease Setup
Select Items...
Set Up Documents...
Set Password...
Version 1.0
2

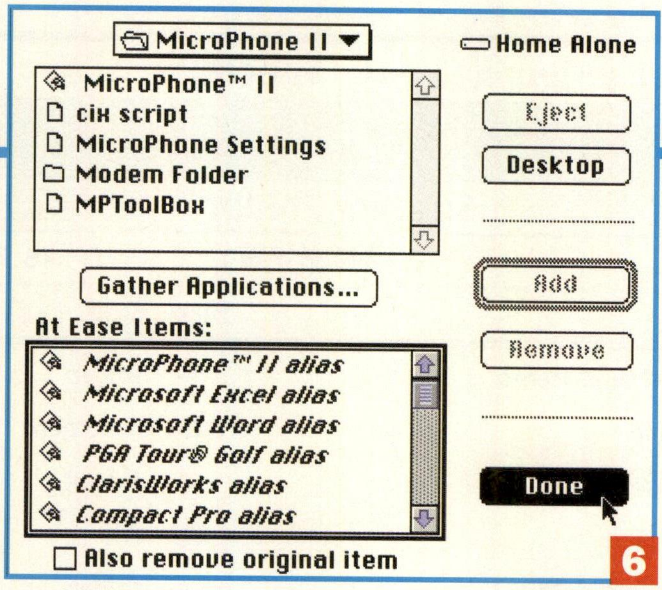
○ Off ● On

"Home Alone" will start up with At Ease.

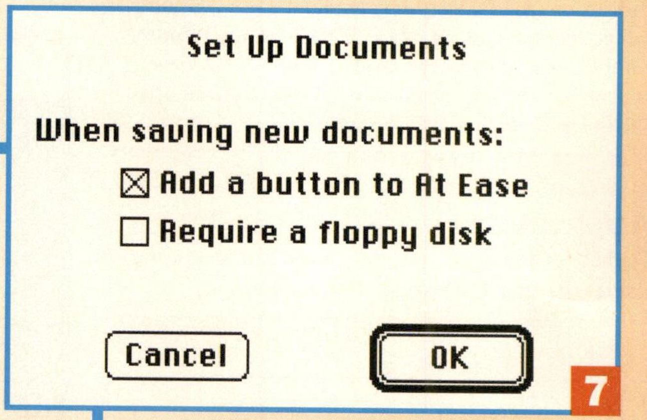
2. When this window appears, click on the '**On**' radio button. Now, the next time you Restart your Mac *At Ease* will take the place of the Finder. Then, to tell *At Ease* which applications it should know about, click on **Select Items...**

3. ...which will produce this dialogue box. Clicking on **Gather Applications** will scan your hard disk and find all the applications, but...


Home Alone
Home Alone
APPLICATIONS
Stuff
System Folder
Eject
Desktop
Open
Remove
Done
Gather Applications...
At Ease Items:
☐ Also remove original item
3


MicroPhone II
Home Alone
MicroPhone™ II
cix script
MicroPhone Settings
Modem Folder
MPToolBox
Eject
Desktop
Gather Applications...
Add
At Ease Items:
MicroPhone™ II alias
Microsoft Excel alias
Microsoft Word alias
PGA Tour® Golf alias
ClarisWorks alias
Compact Pro alias
Remove
Done
☐ Also remove original item
6

6. The application will appear in the bottom window. When you've finished here, click *Done*.

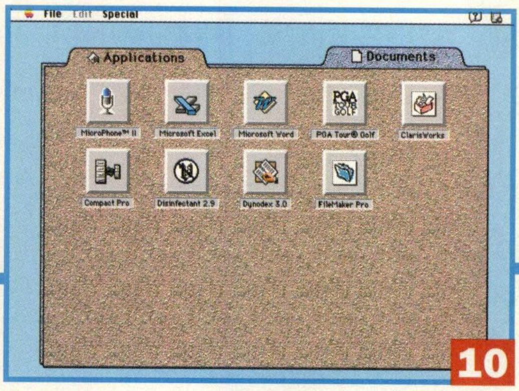

Set Up Documents
Cancel
OK
7

When saving new documents:

☒ Add a button to At Ease

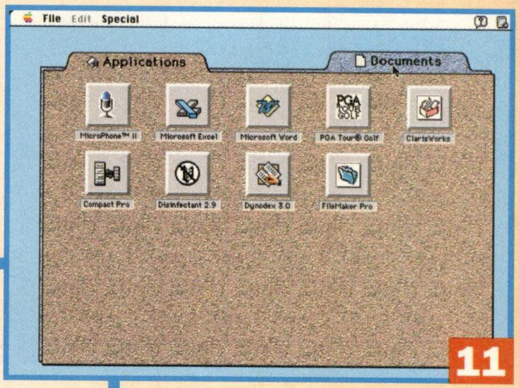
☐ Require a floppy disk

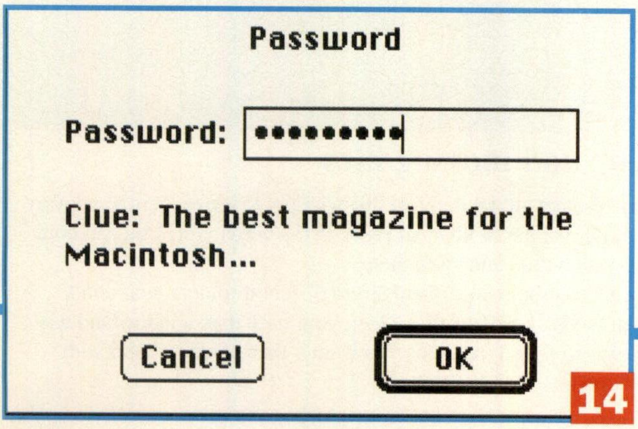
7. Now click the **Set Up Documents** button from the main *At Ease* screen and you'll be shown this dialog. Checking **Add a button...** means that any documents you create will be placed on the **Documents** screen of *At Ease*.


File
Edit
Special
Applications
Documents
MicroPhone™ II
Microsoft Excel
Microsoft Word
PGA Tour® Golf
ClarisWorks
Compact Pro
Disinfectant 2.9
Dynodex 3.0
FileMaker Pro
10

10. ...the main *At Ease* screen will appear. Click on an icon and you'll be taken straight to that application; when you quit, you'll be returned to *At Ease*.

11. To see any documents that you've saved, just click on the **Documents** file card, and it will be brought to the front of the screen...


File
Edit
Special
Applications
Documents
MicroPhone™ II
Microsoft Excel
Microsoft Word
PGA Tour® Golf
ClarisWorks
Compact Pro
Disinfectant 2.9
Dynodex 3.0
FileMaker Pro
11

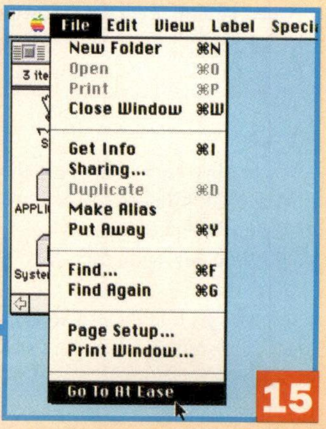

Password
Cancel
OK
14

Password: ●●●●●●●●●

Clue: The best magazine for the Macintosh...

14. ...if you specified a password, you'll have to enter this before you are allowed into the **Finder**. Note that the password appears as a series of blobs, to prevent anyone reading it over your shoulder.

15. When you've finished in the **Finder**, you can return to *At Ease* from the **File** menu.


File
Edit
View
Label
Speci
New Folder ⌘N
Open ⌘O
Print ⌘P
Close Window ⌘W
Get Info ⌘I
Sharing...
Duplicate ⌘D
Make Alias
Put Away ⌘Y
Find... ⌘F
Find Again ⌘G
Page Setup...
Print Window...
Go To At Ease
15

Speeding up the way

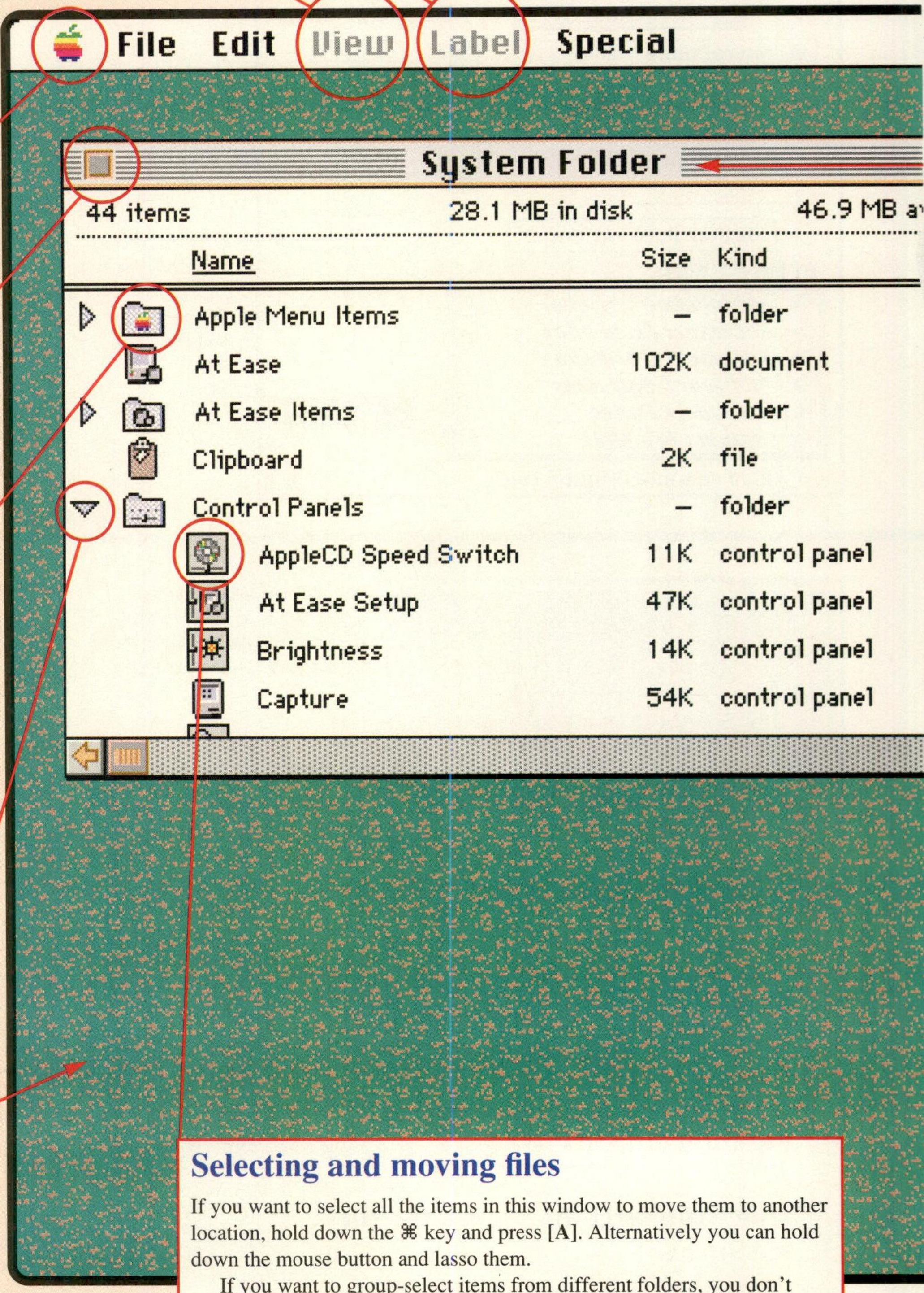
Clicking on the ? icon in the menu bar and selecting **Finder Shortcuts** will reveal five pages of useful tips. But that's just for starters; here's a selection of further shortcuts

View

If you prefer to view windows by icon or small icon, but would still like the contents listed alphabetically, for instance, you can use the **View** menu at the top of the screen. First list the contents by name, then go back to viewing by icon and then hold down **[option]** and go into the **Special** menu. The **Clean Up Window** will be replaced by **Clean Up By Name**. If the view by icon had been by size before, this process will offer **Clean Up By Size** in the **Special** menu.

Labels

You don't have to use the labels already provided, you can customise them using the **Labels** control panel (in the **System Folder** or via the 🍎 menu).



44 items 28.1 MB in disk 46.9 MB a

Name	Size	Kind
Apple Menu Items	–	folder
At Ease	102K	document
At Ease Items	–	folder
Clipboard	2K	file
Control Panels	–	folder
AppleCD Speed Switch	11K	control panel
At Ease Setup	47K	control panel
Brightness	14K	control panel
Capture	54K	control panel

Apple menu

To find out how much memory an application is using choose **About this Macintosh** in the 🍎 menu.

Close Window

To close the active window you can type ⌘ **[W]** instead of clicking on its top left box. Hold down **[option]** while doing either and all the windows on the screen will close.

Active window listings

If the active window contains so many items that you have to scroll up and down to see what's inside, you can find a folder or file fast – simply type the first letter of its name.

In a window listed by name, if you are looking at the Cs and you want to go to the Ts, type **[T]** and you'll be taken to the first item beginning with T. Thereafter the **[tab]** key moves you down the list one at a time while **[shift] [tab]** moves up. To go to the end of the list, press the **[~]** key.

Arrowheads

If you are using the arrowheads to view the contents of folders without opening new windows, and you want to see the contents of any folders within that folder, hold down **[option]** when you click on the arrowhead.

Desktop

This is the Desktop where all your windows, folders and files are displayed. You don't need to close windows or folders before you switch off your Mac – when you turn on your computer again they'll be exactly where you left them.

You can change the background pattern and typeface and size of all the characters through the **Control Panels** files in your 🍎 menu.

Selecting and moving files

If you want to select all the items in this window to move them to another location, hold down the ⌘ key and press **[A]**. Alternatively you can hold down the mouse button and lasso them.

If you want to group-select items from different folders, you don't have to open lots of windows first. Open your hard disk window and use the arrowheads to reveal the items you want – then click on them with **[shift]** held down.

you use your Mac

Menu Bar

This is the menu bar which contains your pull-down menus.

Active Window

The active window is always the one with the stripes on either side of its name.

You can move windows by dragging their title bars. To move one without activating it, hold down the ⌘ key while you do so.

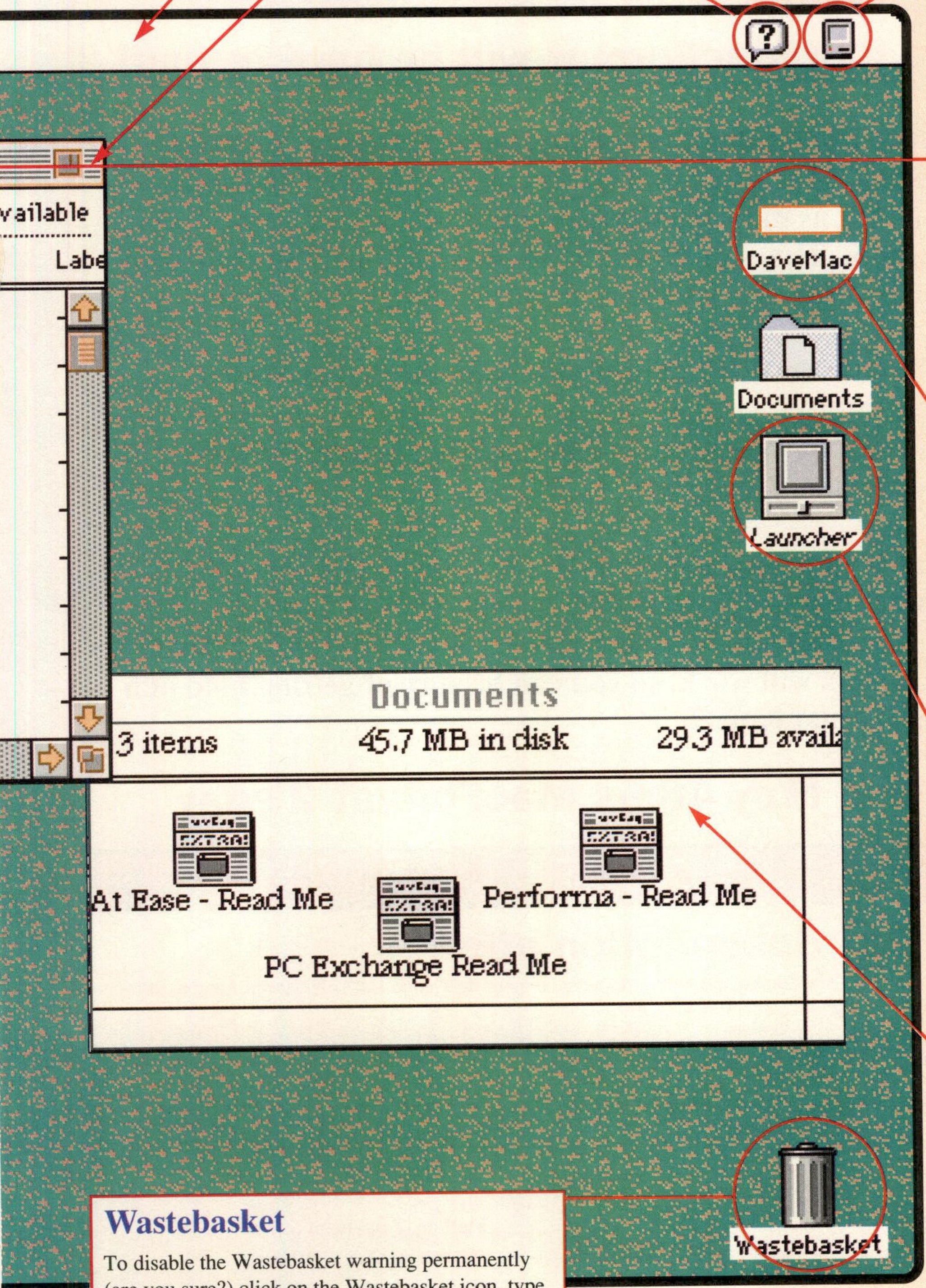
Help

To get instant help about any part of your Mac's operating system, click on the **?** icon and choose **Show balloons**. Many applications offer help features this way too.

Applications

If you want to keep the contents of a window quickly available but without having its window open, you can hide it instead of closing it. The applications menu on the top right of your screen enables you to hide the window of the application you're using, or hide all the other windows instead.

Use **Show All** if you lose track of how many programs are currently available.



Sub-directory name

If you lose your way deep in a sub-sub-directory, hold down and click on the active window's name. A list drops down and beneath the name of your current folder will appear the name of the folder it's in, and then the name of the folder that's in, and so on – with the name of your hard drive at the bottom. To move up and down the list, run the pointer up or down and release over the name you want. If you hold down **[option]** as well as ⌘ when you do this the old window will close as the new one opens. If all you want to do is get back to the desktop, click on your hard drive icon.

Hard Disk

This is the icon representing your internal hard disk. Any other storage devices you have connected to your system, including floppy disks and CD-ROM drives, will also appear beneath it as icons. Any of these icons can be renamed at any time simply by highlighting the name and typing over it with your new text. Double clicking on the hard disk icon at any time will open its window irrespective of how many other windows may be covering it.

Alias Icons

Because an alias is only a shortcut to the real thing you can make more than one alias of a folder and keep them in different places. If you want something to be ready to use every time you turn on your Mac, put an alias of it in the **Startup Items** folder (in your **System Folder**). If want to access a program through your menu, put an alias of it in the **Apple Menu Items** folder (once again, in your **System Folder**).

Passive Windows

If you click on an item in a window that isn't active, that window won't be activated unless you release the mouse button while the pointer is still inside the window. This means you can drag something out of a window without having to activate it first. If you want to take a copy of an item to another window, hold down **[option]** when you drag it to the new window. The original will be left behind and a new version created in the destination window. Alternatively, make a copy of the item using ⌘ **[D]** (or **Duplicate** in the File menu) and then drag that wherever you want it.

Wastebasket

To disable the Wastebasket warning permanently (are you sure?) click on the Wastebasket icon, type ⌘ **[I]** (or go to **Get Info** in the **File** menu) and turn it off using the check box on the bottom left of the information window (are you sure you're sure?).

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MacFormat is a specialised magazine, tailored to cater for the refined needs of Mac users everywhere. Unfortunately that means that there aren't as many copies of MacFormat about as there are, say, of the Radio Times or Hello! So to be sure of getting your copy of issue two on May the 4th there are three things you can do:

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- Get your local newsagent to reserve or, even better, deliver a copy to your door.
- Fill in the form below and allow us post you a copy, regular as clockwork.

All these methods will work, so you can be sure of getting hold of a copy of MacFormat issue 2.

Remember, May 4th is MacFormat 2'sday

mac FORMAT

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mac ANSWERS

Got a problem with your Mac? We're here to solve it

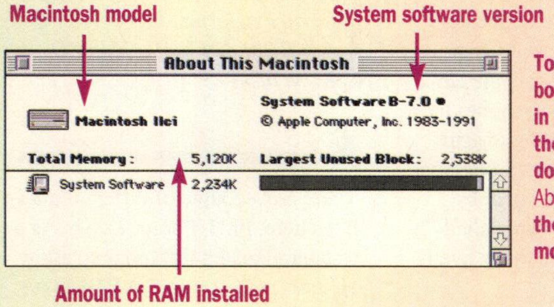
Whatever your Mac problem, we're confident that **MacFormat** can solve it. Whether it's a beginner's question about the Mac or some esoteric query over a specific piece of software, our experts will try to come up with a solution to your problem.

All you have to do is fill in the form below – or photocopy it if you don't want to cut up your magazine – and then post it, or fax, it to us.

Please note that we are unable to answer questions over the phone – so there's no point ringing us up with technical enquiries. We are also unable to enter into personal correspondence – even if you enclose an SAE. We can only deal with questions through the pages of **MacFormat**.

To be sure of your query being answered in our next issue, please send it to us by Friday March 19 1993. Questions received after this date will be answered in a subsequent issue of **MacFormat**.

Please do try to fill in as much of the form as you can. After all, the more details we know about the setup of your Mac and the way you are using it, the more likely we are to be able to find a solution to your query or problem.



Macintosh IIci
System Software B-7.0 •
© Apple Computer, Inc. 1983-1991
Total Memory: 5,120K
Largest Unused Block: 2,538K
System Software 2,234K

To find this dialogue box, make sure you are in the Finder, **point to the menu and scroll down to the first item:** About This Macintosh, **then release the mouse button**

Do-it-yourself problem solving

One of the main causes of a program not working properly is something called an INIT clash – your program isn't happy with one of the system-level extensions that are running.

Fortunately, it's easy to check if this is the case. First of all, restart your Mac without any System Extensions (INITs). If you're running System 7.0 or above, that means restarting the Mac and holding down the Shift key – a message saying that 'Extensions are off' will appear. For any System version below 7.0, move all the Control Panels and INITs out of your System folder and restart the Mac.

If your program now works, it must have been unhappy with one or more of the INITs. The only way to work out which one it was is to move them all out of the System folder, then put them back one at a time – restarting after each one – and test the program after each one has been replaced.

mac ANSWERS

If you send in a question for the MacFormat experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to: **Mac Answers, MacFormat, 30 Monmouth Street, Bath BA1 2BW, or fax it to us on 0225 446019**.

Name ....

Address ....

....

....

Your machine ....

Model (For example, Performa 200, IIfx, PowerBook 145): ....

Approximate age of machine: ....

System version (see **About this Macintosh** screenshot above): ....

Amount of RAM (the **Total Memory** figure from the **About This Macintosh** dialogue box): ....

Are you using virtual memory?

(This is accessed from the **Memory** control panel under System 7) YES/NO

Do you have 32-bit addressing turned on?

(This is accessed from the **Memory** control panel under System 7) YES/NO

If your Mac has an external monitor, list the make and model; if you are using a video card, give details: ....

....

Details of any SCSI devices connected (eg CD-ROM drive, hard drive, scanner):

....

....

Details of any other relevant hardware which could help us to answer your question:

....

....

Now, use this space to describe your problem or question. Include as much relevant information as possible. Please continue on a separate sheet if necessary.

....

....

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Label Q&As

Subjects

- 🟩 Beginners
- 🟨 General/System
- ▨ Hardware
- 🟥 Buying Advice
- 🟪 Technical
- 🟦 Applications
- 🟦 Graphics
- 🟩 DTP
- 🟧 Programming

We have ways of making you talk

Why have we got seven pages of *Mac Answers* when it's our first issue? Here at Future Publishing we have hundreds of Mac users, all with varying levels of knowledge. We bullied them into sending us questions about all those Mac queries they've been too embarrassed to ask aloud in the office.

So the questions on these pages are genuine, and now all we're waiting for is for you, our readers, to write in with your own queries too.

Q *When my Mac crashes, it keeps giving me ID numbers for the errors that have occurred. Why can I find no appendix or index of errors in the manual? I'd like to know what went wrong so that I can stop it happening again.*

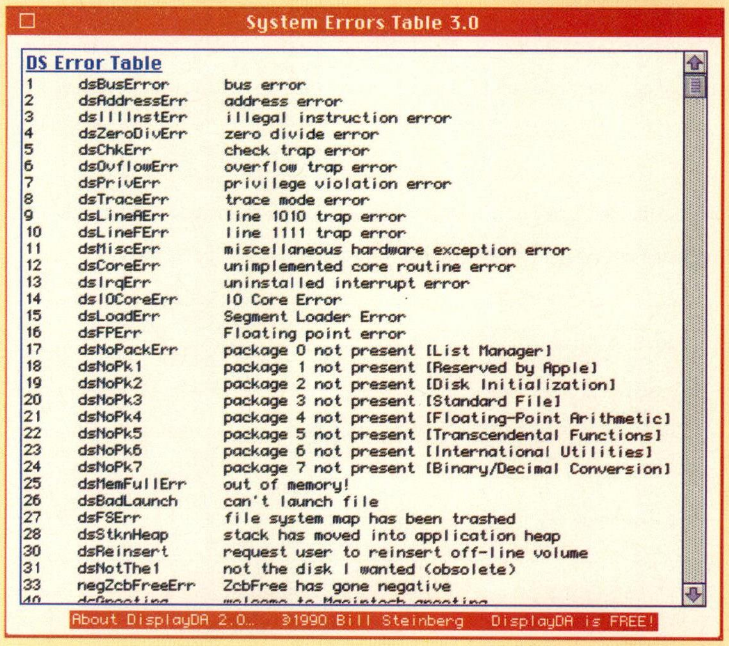
A

The System Error – or crash – is one of the least user-friendly aspects of the Mac. Normally all you see is a dialogue box with a picture of a bomb, an 'ID' number for the error and a button marked **Restart**, which does exactly that. There is also often a button marked **Resume**, but this is nearly always greyed out – so you can't use it.

To be honest, there probably isn't much that you gain by knowing what most of the error messages mean unless you're pretty technical – 'Line 1111 trap error' or 'IO core error' isn't going to help you deal with the problem in the future.

On the other hand, knowing the cause of some crashes – an ID number 25, for example, is an 'Out of memory error' – can help you to sort things out.

The easiest way to find out what all the error ID numbers mean is to get hold of a PD (Public Domain) desk accessory called *System Errors Table* (see screen below), which lists them all in a scrolling window. They are also all listed (somewhere) in Inside Macintosh, which is a series of programmers' reference books – but since IM costs £20 or so per volume, and there are currently six in the series, *System Errors Table* is a more sensible solution.



```
System Errors Table 3.0

DS Error Table
1       dsBusError       bus error
2       dsAddressErr     address error
3       dsIllInstErr     illegal instruction error
4       dsZeroDivErr     zero divide error
5       dsChkErr         check trap error
6       dsOvflowErr      overflow trap error
7       dsPrivErr        privilege violation error
8       dsTraceErr       trace mode error
9       dsLineAErr       line 1010 trap error
10      dsLineFErr       line 1111 trap error
11      dsMiscErr        miscellaneous hardware exception error
12      dsCoreErr        unimplemented core routine error
13      dsIrqErr         uninstalled interrupt error
14      dsIOCoreErr      IO Core Error
15      dsLoadErr        Segment Loader Error
16      dsFPErr          Floating point error
17      dsNoPackErr      package 0 not present [List Manager]
18      dsNoPk1          package 1 not present [Reserved by Apple]
19      dsNoPk2          package 2 not present [Disk Initialization]
20      dsNoPk3          package 3 not present [Standard File]
21      dsNoPk4          package 4 not present [Floating-Point Arithmetic]
22      dsNoPk5          package 5 not present [Transcendental Functions]
23      dsNoPk6          package 6 not present [International Utilities]
24      dsNoPk7          package 7 not present [Binary/Decimal Conversion]
25      dsMemFullErr     out of memory!
26      dsBadLaunch      can't launch file
27      dsFSErr          file system map has been trashed
28      dsStknHeap       stack has moved into application heap
30      dsReinsert       request user to reinsert off-line volume
31      dsNotThe1        not the disk I wanted (obsolete)
33      negZcbFreeErr    ZcbFree has gone negative

About DisplayDA 2.0...   ©1990 Bill Steinberg   DisplayDA is FREE!
```

System Errors Table lists all those cryptic error ID numbers in an easy-to-reference form. They still don't make much sense, though...

Q *My Mac Classic had* HyperCard *bundled with it. What is* HyperCard*, and what can it be used for?*

A

HyperCard has been bundled with Macs for many years – although the rumour is that the full version won't be bundled for much longer. It is difficult to describe – even Apple Computer has trouble at times.

Essentially, it's an application which allows you to write your own programs in an English-style language – so even technophobes have a good chance of getting to grips with it. You can also run programs manufactured by other people: *HyperCard* programs are called 'stacks', and there are many available commercially.

The majority of stacks are content based, that is, they contain a large amount of information, and *HyperCard* is used as a 'front end' to access that information – but there are plenty of address books, calendars, terminal emulation programs and even a *QuickTime* video editing package available as well.

Unfortunately, the version of *HyperCard* which has been bundled with Macs for some time appears to be restricted when you first use it – you can't actually write programs with it, you can only use it to run other people's. However, this is just because Claris – the company which makes the program – wants you to buy a separate 'developer's kit' (a suite of utilities/programming tools for writing your own software). In fact, you can easily turn your restricted version of *HyperCard* into the full thing:

- Launch the application by double-clicking on the **Home** stack
- Go to the **Preferences** card
- Hit **[Command]** – **[M]** to produce a message window
- Type in the word 'magic' and hit **[Return]**
- Type in 'set userlevel to 5' and hit **[Return]**

That's it! You now have a fully functional version of *HyperCard*.

If you want to learn more about programming, there are plenty of books available on the subject, or you could buy the official Claris developer's kit from your local Apple dealer.

Rumour has it that Apple Computer will, in the very near future, stop bundling the current version of *HyperCard* with Macs, and will instead give away a 'run time only' version; one which will only run programs and which can't be used to write your own.

Q *I have a Mac with a plug-in CD-ROM drive. A friend of mine gave me a Kodak PhotoCD demo disk, but my Mac didn't recognise the format. Do these CDs need special players? What's the difference in format between a PC CD-ROM disk and a Mac CD-ROM disk?*

A

There are a couple of different questions here. First, PhotoCD. This is a standard created by Kodak to allow pictures placed on a CD-ROM (see Jargon Busters) to be displayed on your TV set via a special device similar to an audio CD player. To get your holiday snaps on to the CD you just take them to one of several thousand photo processors around the country which have the relevant equipment – it only costs a tenner or so to have a set of pictures scanned and placed on the CD.

PhotoCD discs can be displayed on certain Mac CD-ROM players – but it's only recently that these compatible players have appeared on the market. As well as a compatible player, you will also need a special piece of software which converts the data on the disk into a format that Mac applications can read. The good news, if you have a Mac IIvi, IIvx or Performa 600, is that Apple's CD300i internal CD-ROM drive is PhotoCD-compatible, and comes with the relevant software. If you have any other Mac, you could do far worse than look at Apple's new CD300 drive, which is the external version of the 300i.

The other part of the question relates to the difference between PC and Mac CD-ROM disks. Basically, your Mac CD-ROM player should be able to read any CD-ROM as long as its data is saved in either

Mac, High Sierra or ISSO 9660 format – and that, basically, covers any disk which can be read by a PC. However, do remember that you will not be able to run any PC applications from the disk – so even though you can read the disk, it may still be useless to you.

Q *Is there any use for the **[Esc]** key on the keyboard?*

A

'Esc' is short for Escape, and is widely used by PC programs. It's hardly ever required by Mac programs (not all keyboards have it), but if you want to cancel a dialogue box, you can hit **[Esc]** rather than clicking on the **Cancel** button.

Q *Can I use an LC keyboard with a Mac IIsi, IIfx or any other Mac for that matter?*

A

The keyboard plugs into the ADB (Apple Desktop Bus) port on the back of your Mac, and is standard across the whole of the current Mac range – it is totally interchangeable between models. Indeed, there are now third party companies producing their own keyboards as alternatives to Apple's, often at a much lower cost. You will find that these keyboards are similar to Apple's 'Extended' keyboard, which is itself almost identical to those supplied with most PCs.

The only members of the Mac family which this keyboard consistency does not apply to are the old Mac Plus, 512KE and earlier models. These had their own, special keyboard interface, and hence require a special keyboard.

Q *I have a friend with an IBM-compatible PC. Can I read his disks on my Mac?*

A

The question of cross-platform compatibility is a thorny one, and we can only give a brief answer here – we'll cover the subject much more thoroughly in future issues of **MacFormat**.

The question breaks down into a couple of areas: can you physically read the data on the disks, and can you then do anything with that data? First, the physical reading. This is fairly easy: you can read any 3.5-inch disk created by a PC on your Mac. If you bought a Performa, you will have been supplied with *Macintosh PC Exchange*, a control panel which allows you to do just that. If you don't have *PC Exchange*, you can either use a third-party product such as *Access PC*, which works in the same way, or you can use the free *Apple File Exchange* which comes on the System disks that you should have received with your Mac (in the System 7.0 disk set, for instance, the program is on the 'Tidbits' disk) – refer to your manuals for details on how to use the program.

Label Q&As

Subjects

🟩	Beginners
🟨	General
▨	Hardware
🟥	Buying Advice
🟪	Technical
🟦	Applications
🟦	Graphics
🟦	DTP
🟧	Programming

Whichever method you use, you can transfer a PC-created file on to your Mac's hard disk. Now, though, comes the question of whether you can do anything with it. For starters, if it's a PC program (normally a file with a name ending in '.EXE') you can forget about using it unless you buy a special application which makes your Mac emulate a PC; otherwise your Mac cannot run PC programs. However, if it's a data file – a letter created in a word processor or a database file, for instance – you may well have more luck. It all depends on how the file has been saved from the PC.

Some programs – such as *FileMaker Pro*, from Claris – are totally file format compatible – which means that you'll be able to import a database file created in *FileMaker Pro for Windows* directly into the Mac version of the application. The same goes for *QuarkXPress* and some other packages. Otherwise, you'll have to save the data from the PC program in a format which your Mac application can recognise. If you're saving a word processor document, try to save it as an RTF (Rich Text Format) or ASCII (plain text) file, since virtually every Mac word processor can read these formats. If you're trying to transfer a spreadsheet file, then save it as 'SYLK' – which stands for Symbolic Link – a format which almost every spreadsheet can understand.

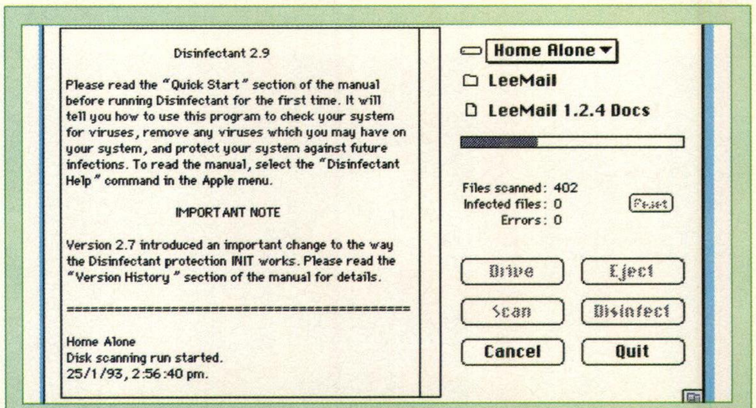
This is only the tip of the iceberg; there are a number of applications, such as *MacLink Plus/PC*, which deal specifically with getting data from the PC to the Mac or vice versa. Watch out for a **MacFormat** feature on the subject in the near future.

Q *What's a virus? I've read that viruses can destroy my computer – is this true? How can they be spread? What do I do if my Mac catches one?*

A

The computer virus has been the subject of vast amounts of (often ill-informed) media hysteria over the past few years – newspaper headlines like, 'Killer virus destroys hundreds of city computers' don't tend to help people keep things in perspective. In fact, the virus problem on the Mac is fairly small, and most Mac users will never even come across one. However, you do need to be aware of what they are, what they can do and how you can combat them, so here are the basic facts about computer viruses.

- A virus is a program which spreads by hiding away in an application and, when it's activated, copying itself to other programs or disks. It may be totally harmless – just copying itself and not doing anything else – or it may be designed to print a message on the screen, crash the computer or even wipe data off the hard disk.
- It's important to realise that your Mac can only 'catch' a virus if you insert a disk which is infected into your Mac – and normally even then you have to launch an infected application before the virus will get to work. A person cannot catch a computer virus, nor can you spread it to your Mac just by touching an infected machine! A virus is a computer program – nothing more, nothing less.
- Only about 14 viruses have been written for the Mac, and of those only a handful still exist. This is not the case on other computer platforms – there are hundreds of Amiga viruses, and almost as many exist on the PC. Don't worry – your Mac can only be infected by Mac viruses – even if you put a PC disk which contains a PC virus into your Mac's disk drive, it will have no effect on your machine.
- Most Mac viruses aren't intended to be harmful; at worst they print a message on the screen on a certain date and then disappear. However, there have been two or three written which are designed to destroy data – although fortunately none of these is particularly prevalent.
- The easiest way to check for – and destroy – any viruses is to get hold of some anti-virus software. This is specifically written to check any inserted disk and warn you if a virus is present. You can then 'disinfect' the disk before the virus has a chance to spread to your machine. The two main commercial programs are *Symantec Anti-Virus for Macintosh* (*SAM*) and *Virex*. However, there's a piece of free, public domain (see Jargon Busters) software called *Disinfectant* which does the job



```
Disinfectant 2.9

Please read the "Quick Start" section of the manual
before running Disinfectant for the first time. It will
tell you how to use this program to check your system
for viruses, remove any viruses which you may have on
your system, and protect your system against future
infections. To read the manual, select the "Disinfectant
Help" command in the Apple menu.

IMPORTANT NOTE

Version 2.7 introduced an important change to the way
the Disinfectant protection INIT works. Please read the
"Version History" section of the manual for details.

==============================================

Home Alone
Disk scanning run started.
25/1/93, 2:56:40 pm.
```

Files scanned: 402
Infected files: 0
Errors: 0

Disinfectant in action. This anti-virus utility checks disks to make sure they're free from infection and is available free from bulletin boards and public domain houses just as well, and which has become the firm favourite of many Macintosh professionals. *Disinfectant* is available from PD houses or bulletin boards, and is updated as soon as any new virus is released. It consists of a System Extension which checks any disk or application as it's launched for suspicious signs, and a separate program which you can use to scan and disinfect your hard disk or any floppy. As long as you install the Extension and scan your disk from time to time, you should have no virus problems.

🟩 If you suspect your Mac might have a virus, save any work, quit the application you're in and shut down. Leave the Mac turned off for 30 seconds or so, and then turn it back on and immediately run whichever anti-virus software you're using. Remember, though, that if your Mac starts exhibiting strange behaviour it's almost certain to be a 'normal' crash – not a virus at work.

Q *What's a screen saver? Why is it useful? What's the best screen saver to buy?*

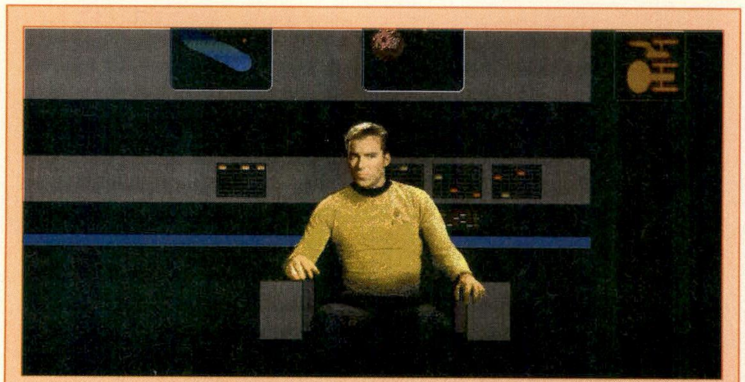
A

A screen saver is designed to prevent 'burn in' on the phosphors of your monitor. Burn-in can occur if the same image is left on the screen for a long time, and results in a 'ghost' of this image being permanently visible. Screen savers avoid this by changing the image on the screen after you've left the Mac unattended for a certain amount of time. Some just dim the screen, some show moving patterns or pictures. To get back to what was originally displayed, you generally just have to move your mouse or press a key.

About two years ago, two competing products were released which took screen savers one step further on. They were called *Pyro!* and *After Dark*, and both featured a wide range of different patterns and images – *After Dark* even had a shoot-em-up game (see Jargon Busters) built in. For some reason, *After Dark* went on to become incredibly popular, leaving *Pyro!* somewhat by the wayside, and has now sold somewhere in the region of a million copies. Why the program became so popular is anyone's guess – it's probably indicative of Mac users' love of the unorthodox.

Anyway, you can now buy extra 'modules' to make *After Dark* do other things when you're not there – called *More After Dark* (or, aptly, *MAD*) – and there's even a screen saver based on Star Trek from the same company.

To be honest, screen savers aren't really necessary – you would have to leave the same image, on a screen turned to maximum brightness, for weeks and weeks before burn-in would start to occur. If you're worried, the best thing to do is to turn the brightness on your monitor right down if you're going to leave your Mac unattended for any great length of time. And for those who want a screen saver but who don't want to spend much money, there are a number in the public domain which do a perfectly good job. But still *After Dark* seems to exert an irresistible pull on vast numbers of people…



Star Trek: the screen saver in action. A screen saver prevents burn-in by changing the image on your Mac's screen when you've left it unattended for a while

Q

I've recently bought Prince of Persia *and* Monkey Island, *having only just discovered games on the Macintosh. The thing is, while* Prince of Persia *looks absolutely wonderful,* Monkey Island's *graphics are distinctly indifferent. In fact, they look just like the VGA (Video Graphics Array) PC version.*

Label Q&As

Subjects

🟩 Beginners
🟨 General
▨ Hardware
🟥 Buying Advice
🟪 Technical
🟦 Applications
🟦 Graphics
🟩 DTP
🟧 Programming

Can PC graphics be ported into Mac games? And if so, does this mean we can expect to see more Mac games with 'poor' PC graphics, instead of the wonderful graphics we know the machine is capable of?

A

The graphics can't be ported directly across from the PC to the Mac – the game's developers will have had to re-program the game from scratch. However, if designs for the screens have already been specified, then the programmers will just use those designs when they're writing the Mac version of the game – and if it was originally intended for the PC, the screens will have been designed to take into account the PC's limitations.

Another reason that you won't always see superb graphics on the Mac screen is that many games are written to run in 16-colour, rather than 256-colour, mode. This is for a number of reasons, the main ones being that the screen re-draws faster in 16-colour mode, so the game will run more smoothly, and also because 16-colour mode means that people whose Macs can't display 256 colours aren't penalised. (The LC, when connected to an Apple 14-inch colour monitor, for instance, only runs in 16-colour mode as standard.)

Q *I keep hearing about screens showing '8-bit greyscale', '16-bit colour' and so on. What does this all mean?*

A

There are two ways of referring to how many colours or shades of grey your Mac's monitor can display. The first, and easiest to understand, is simply to call it '256 greyscale', 'thousands of colours' and so on – that's the way the information is shown in the **Monitors Control Panel**. However, there is another, more technical way which is used by many people. This is to describe the display in terms of its 'bit depth'. Don't panic, though; it's just as easy to use when you get the hang of it. To work out how many colours, say, an 8-bit display can show, you simply work out what 2 to the power 8 is (that is, 2x2x2x2x2x2x2x2). The answer is 256 – so an 8-bit colour display can show 256 colours. Similarly, 16-bit is 65,536 ('thousands') of colours, and 24-bit (the highest the Mac is capable of displaying) is 16.8 million colours. Note that the Performa 200, Classic II and other 'compact' Macs have 1-bit screens, which show 2 different levels of grey – black and white (since white is counted as a grey level).

Q *My friend was using my Mac, and when he'd finished he just switched it off, rather than using the* **Shut Down** *option from the* **Special** *menu. Will this have harmed it?*

A

No, it probably won't have harmed the machine. However, it's not a good thing to do. When you select **Shut Down**, the Mac performs a number of 'housekeeping tasks' and makes sure that you don't have any files open – if you do, it asks you whether you want to save the work in them. It also makes a note to itself that the shutdown was performed normally, so starting up the next time should be no problem.

Just switching the Mac off bypasses those tasks, so when you next switch on, the Mac notices that the last closedown wasn't 'normal', and goes through a series of checks to make sure that things like the hard drive are OK – which takes longer than a normal startup.

Also, it's possible that if you have a file open when you switch the power off, you won't easily be able to access it the next time you want to – the Mac may mark the file as 'in use', and you'll need special hackers' programs to do anything about it. The moral is: always use the **Shut Down** command.

Label Q&As

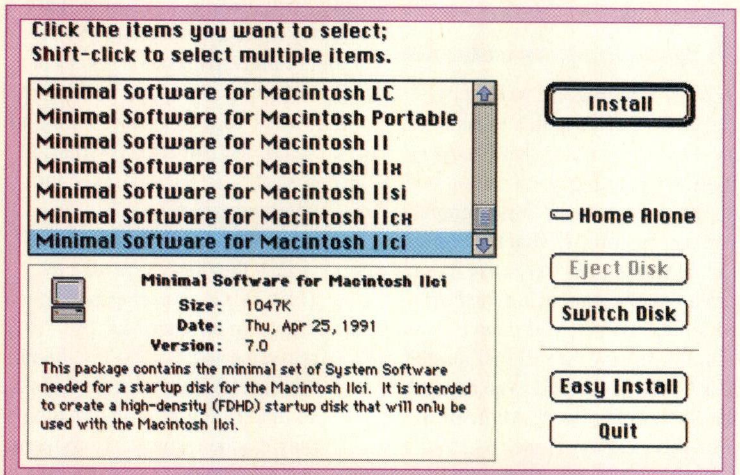
Subjects

- 🟩 Beginners
- 🟨 General
- ▨ Hardware
- 🟥 Buying Advice
- 🟪 Technical
- 🟦 Applications
- 🟦 Graphics
- 🟦 DTP
- 🟧 Programming

Q *What is the best way to reduce the size of the* ***System File*** *in my copy of System 7?*

A

To be honest, there's not a lot of point in doing that, unless you are really short of space on your hard disk – and even then, you're not going to save much room. However, if you really want to, the best thing to do is to re-install your copy of System 7 using your original Apple System disks. Instead of just hitting **Install**, click on the **Customise** button and select **Minimal System** for your model of Mac. This will reduce the number of features available to you – it might not install all of the networking features, for instance – but the System size will be smaller than it is with the standard installation.


Click the items you want to select;
Shift-click to select multiple items.

Minimal Software for Macintosh LC
Minimal Software for Macintosh Portable
Minimal Software for Macintosh II
Minimal Software for Macintosh IIx
Minimal Software for Macintosh IIsi
Minimal Software for Macintosh IIcx
Minimal Software for Macintosh IIci

Minimal Software for Macintosh IIci
Size: 1047K
Date: Thu, Apr 25, 1991
Version: 7.0
This package contains the minimal set of System Software needed for a startup disk for the Macintosh IIci. It is intended to create a high-density (FDHD) startup disk that will only be used with the Macintosh IIci.

To reduce the size of the **System** file, install a System using the **Minimal System** option from the **Installer**. This will help to save space on your hard disk

Alternatively, you could throw away most of the fonts in your **System** file (assuming you're using System 7.0, not 7.1). Do this by double-clicking on the **System** file to open it, and then dragging fonts to the **Wastebasket**. Some fonts are required by the Mac – you won't be allowed to throw them away. You can also throw away any sounds that you don't want; they're also stored in the **System** file, and can take up a large amount of disk space.

Q *What's a PostScript font? What's the difference between that and a TrueType font?*

A

PostScript is a 'page description language' (PDL) which was created by Adobe Systems Inc. A PDL is used by a printer to work out where all the different elements of the page should be – graphics, text and so on. After its invention, PostScript became extremely popular and was incorporated by Apple into most of its LaserWriter range of printers.

A PostScript font is one that a PostScript printer recognises, and can use to produce type that looks smooth at any size. Along with the 'printer font' there is also a 'screen font', which the Mac uses to approximate on the screen how the type will look on paper. Unfortunately, screen fonts can look jagged when they're used at large sizes – so Apple Computer and a couple of other companies came up with TrueType, which is a font that looks smooth both on printed output and on the screen, whatever the size. All the fonts initially supplied with new Macs are TrueType.

Adobe has its own solution to the problem of jagged PostScript screen fonts – it's called *Adobe Type Manager* (*ATM*), and using this produces smooth-looking on-screen PostScript fonts.

Unless you use your Mac to produce work which you'll send to an imagesetting bureau (which produces extremely high quality output at 2,540 dots per inch, rather than the 300dpi that most laser printers output), you will be fine using TrueType fonts – and they'll look good whatever output device you have. If you want to use PostScript fonts, you will either need a PostScript printer or a copy of *ATM* for good quality output.

Q *I've heard people mention 'scuzzy' when they're talking about computers. Can you explain what this means?*

A

SCSI stands for Small Computer Systems Interface, and is indeed pronounced 'scuzzy'. It's a system for connecting other machines (known as peripherals) such as extra hard disk drives and scanners to a computer. All Macs have a SCSI port on the back, and you can connect up to six external peripherals in a 'chain'. It's normally a simple procedure, although if you have a number of SCSI devices connected you will sometimes find that you need to juggle their order a bit to get everything working properly.

SCSI is a subject that we'll be coming back to in more detail in a future issue of **MacFormat** – it's vital to the expansion capabilities of your Macintosh.

Q *What is 'virtual memory'? There's an option for it in my* ***Memory*** *control panel.*

A

Virtual memory (VM) is a way of fooling the computer into thinking that it has more RAM (Random Access Memory) installed than is really there. The feature is only available under System 7.0 or above, and only on certain Macs – the Classic, for instance, can't use virtual memory.

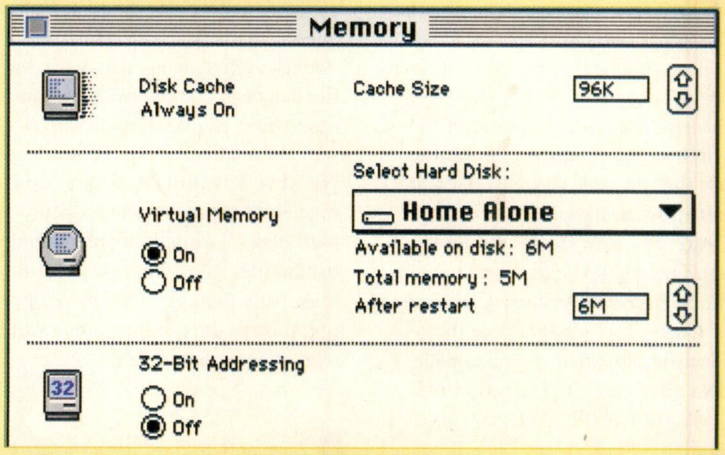
Basically, what happens is that part of your hard disk is used as if it were RAM – the Mac automatically switches data between its RAM and the disk as necessary. To use VM you need to have as much free space on your hard disk as you want total memory available. For example, if you've got 4 Mb installed and you want to use virtual memory to increase this to 10 Mb, you need 10 Mb of free space on your hard disk – which you won't be able to use for anything else while the feature is turned on. You can reclaim the disk space by switching virtual memory off. (Note that you must restart your Mac after you turn VM on or off to make the changes take effect.)

There are disadvantages to this system of working; the principal one is that using VM is much slower than 'real' RAM, so if you find that you're using it a lot, it's probably worth investing in some extra memory. Also, some programs (although not many, these days) use their own form of virtual memory, which can confuse the Mac and cause crashes.

Q *What's the difference between the* ***Scrapbook*** *and the* ***Clipboard****?*

A

The **Clipboard** is where data is saved when you use the **Copy** or **Cut** command. If you select, say, a paragraph of text and then choose


Memory

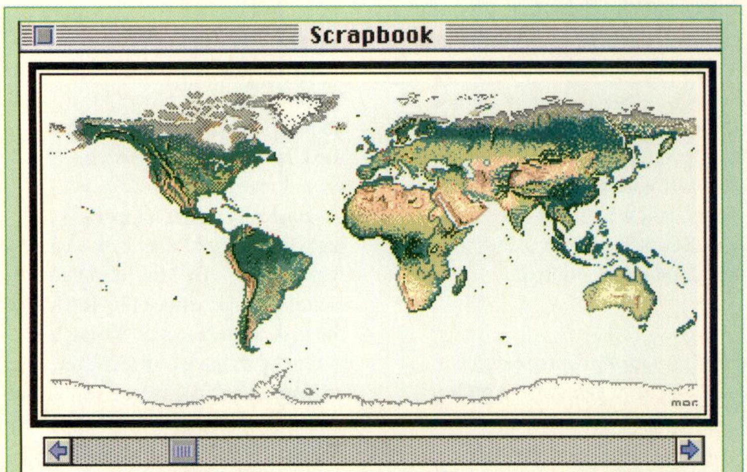
Disk Cache
Always On
Cache Size: 96K

Select Hard Disk: Home Alone

Virtual Memory
● On
○ Off
Available on disk: 6M
Total memory: 5M
After restart: 6M

32-Bit Addressing
○ On
● Off

The **Memory** control panel allows you to switch virtual memory on and off. Note that you must restart your Mac before the extra memory becomes available



The **Scrapbook** can be used to save frequently-used pictures, text, sounds and even *QuickTime* movies. To see what's in the **Scrapbook**, click on the scroll bar at the bottom

Label Q&As
Subjects

🟩 Beginners
🟨 General
▩ Hardware
🟥 Buying Advice
🟪 Technical
🟦 Applications
🟦 Graphics
🟦 DTP
🟧 Programming

Copy from the **Edit** menu of your application, that text is placed on the **Clipboard**. (Most applications have a command to show the contents of the **Clipboard**, or you can switch to the **Finder** and choose **Show Clipboard** from the **Edit** menu there.) When you **Paste**, whatever's on the **Clipboard** (be it a picture, text, or even – under System 7 – a sound or *QuickTime* movie) is inserted into your document at the required position.

However, the **Clipboard** only stores items temporarily. The next time you **Cut** or **Copy**, what was previously on the **Clipboard** is deleted to make way for the new information. What's more, turning your Mac off loses the contents of the **Clipboard**.

For this reason, Apple supplies a desk accessory called the **Scrapbook**, which can be accessed from the menu. You can use this to save bits of information which you frequently use – perhaps a company logo, or a paragraph from a letter that you constantly use. To insert data into the **Scrapbook**, you **Copy** it from your application, open the **Scrapbook** and then hit **Paste**. It is automatically placed on a new 'page' – to view the contents, use the scroll bar at the bottom of the window. Then, when you want to use that piece of data just open the **Scrapbook**, find the correct page, **Copy**, and then **Paste** into your application. To delete an item from the **Scrapbook**, just use **Cut** instead of **Copy**. The advantage of the **Scrapbook** is that it retains your data after you turn the power off.

A utility called *SmartScrap*, available for £58 from MacLine (081 642 2222), boosts the functionality of the **Scrapbook** even more.

Q *Someone has given me a file which she says is a public domain program. However, every time I double-click on it I'm just told that 'The application that created this could not be found.' The file's name ends in '.sit'. What am I doing wrong?*

A

Nothing. The file extension '.sit' means that the file has been compressed to save disk space with a program called *StuffIt*, which you don't have on your hard disk. You'll need to get hold of a copy (there's a shareware version, or you could buy the commercial application) or find someone who has *StuffIt* and get them to expand the file for you.

These file extensions are a hang-over from DOS computers, which require file names to be a maximum of eight characters long, plus the three-letter extension.

Other common file extensions are '.cpt', which means that again the file has been compressed, but this time with a shareware program called *Compact Pro*, and '.sea', which stands for Self Extracting Archive. This means that again the file has been compressed, but this time when you double-click it, it will automatically expand itself – so you'll be left with the archive and the newly expanded file on your hard disk. Normally people who distribute files in a compressed form make sure that they're self-extracting, to save the recipient any trouble when they come to read it.

Q *I've been told about something called* ResEdit. *What is it, and what can it do?*

A

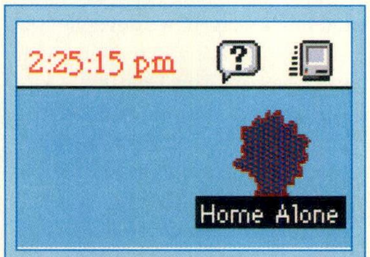
ResEdit is a program written by Apple Computer which is mainly used by programmers and hackers. It allows you to change all sorts of things in programs – for example, you can customise what the menus say. However, it's very easy to damage an application using *ResEdit* – which means that you'd have to re-install it from your original master disks. And you could even corrupt the **System** file itself. All in all, it's probably best left alone.

Q *Lots of Macs that I've seen working have a clock display on the menu bar, but I can't make mine produce the same display. How do I do it?*

A

Simple. The Mac can't produce the display without an extra program to do it; most people use *SuperClock*, a free public domain utility written by Steve Christensen. It's available from bulletin boards and PD libraries, and puts a display of the time on the right-hand side of your menu bar, in any font and colour that you want.

SuperClock also incorporates an alarm clock – so you can avoid using Apple's rather primitive *Alarm Clock* DA.



Superclock puts a permanent display of the time on your menu bar – the perfect present for clock watchers

Q *I used to run System 6.0.5 on my 2 Mb Mac SE, but I recently upgraded to System 7.0 because everyone told me that it was a good move. However, now I can't seem to run most of my applications – the Mac tells me that there isn't enough memory. Why?*

A

Unfortunately, with the benefits of System 7 come problems – and one of them is that it requires much more RAM than System 6 did. The only real answer to your problems is to buy more memory, but there are some things that you can do in the short term to reduce the amount of RAM that your System is eating up.

- Install the **Minimal System**, as described in the answer to the letter on page 91.
- n the **Memory Control Panel**, reduce the disk cache size to 16K. This disk cache speeds things up on your Mac by remembering the last few items that it read from your hard disk, so that if they're required again they can be retrieved from memory rather than from the hard disk, which is slower. Generally speaking, the larger this cache the better (up to a sensible limit of about 512K), but this uses up RAM.
- Remove any INITs (see Jargon Busters) and **Control Panels** that aren't necessary – screen savers, eyeballs and the like.
- Get hold of *SpeedyFinder7*, a shareware program which allows you to **Quit** the finder. Assuming that you can launch an application, you then switch back to the **Finder** and **Quit** it – you're returned to your application, and there's about 300K more memory available. However, you can't access anything in the menu until you quit the application – at which time the **Finder** re-loads itself.

If none of this does any good, and you can't afford to buy any extra RAM, you'll just have to go back to running System 6.

Q *I want to get accented characters in a letter I'm writing to someone abroad. Can I do this?*

A

No problemo! It's not always easy to work out how to get them, but here's a list of some of the most common accented characters to be found in European languages:

é	**[Option]** – **[e]** then **[e]**
è	**[Option]** – **[`]** then **[e]**
á	**[Option]** – **[e]** then **[a]**
à	**[Option]** – **[`]** then **[a]**
ê	**[Option]** – **[i]** then **[e]**
â	**[Option]** – **[i]** then **[a]**
ë	**[Option]** – **[u]** then **[e]**
ö	**[Option]** – **[u]** then **[o]**
ç	**[Option]** – **[c]**
ñ	**[Option]** – **[n]** then **[n]**
«	**[Option]** – **[\]**
»	**[Shift]** – **[Option]** – **[\]**

Note that for most of the above, when you hit the first Option-and-key combination, you won't see anything on the screen. It's only when you hit the second key that the character appears.

Q *I have a PowerBook which I want to take abroad with me. Could you tell me where can I get a suitable transformer?*

A

You don't need one! Apple's PowerBook power supply auto-senses the voltage for anything between 110 and 240 volts, and will work within those ranges. All you need is a convertor to change the three-pin plug to whatever the foreign country's power sockets require. Places like Dixons and airport shops sell them for about £5.

In fact, this goes for much of the Mac range – certainly the more expensive Macs, such as the IIcx, IIci, IIfx and Quadras. However, do check with your local Apple dealer if you're intending to take a Mac abroad – the lower-cost Macs don't have this kind of transformer, and in that case you could end up frying your computer.

Q *Some Apple Macintosh users seem to have been able to replace the normal icons for folders, files and hard disks with their own. How is this done?*

Label Q&As

Subjects

🟩 Beginners

🟧 General

⬜ Hardware

🟥 Buying Advice

🟥 Technical

🟦 Applications

🟪 Graphics

🟩 DTP

🟥 Programming

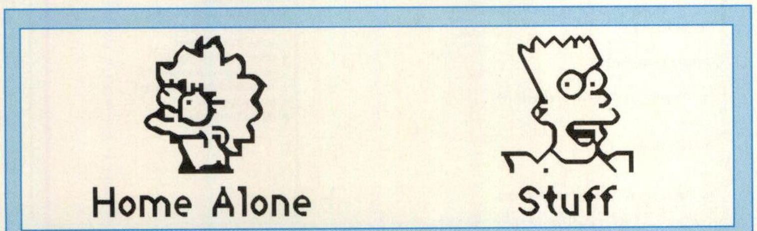
A

It's quite a simple procedure, although you do need to be running System 7 to do it. Just follow this procedure:

Find an image that you want to use. You can use clip-art that someone else has created, or you can draw your own in a drawing program. Open the image in some kind of draw or paint package, select it and **Copy** it. You can then **Quit** the program – a copy of the image is on the **Clipboard**.

- Click once on the file, folder or disk icon that you want to change.
- Select **Get Info** from the **File** menu of the **Finder**. A window will appear showing you various details about the file.
- Click on the file's icon. A box will surround it.
- Select **Paste** from the **Edit** menu. A miniature version of the image that you copied earlier will replace the standard icon.
- Close the **Info** box by clicking on the **Close** button in the top left corner of the window.
- That's it! Your icon has replaced the standard one. If you want to revert at any time, **Get Info** on the file, click on the icon and hit the **[Delete]** key. This will replace your custom icon with the standard one.

It is possible to replace icons when you're running System 6 – but it involves hacking files with *ResEdit* (see previous page), so it isn't really to be recommended.



The hard disk's Lisa and the folder's Bart – who the hell are you, man? It's possible to replace the hard disk, folder and file icons with almost anything...

Q *I've heard about things called desk accessories. What are they? How are they different from normal applications?*

A

Before System 7 came along, the Mac worked in a slightly different way. It was possible to set the machine up so that it could only run one application at a time, or so that it could have several running at the same time (using something called Multifinder), as is always the case under System 7. The problem, though, was that if only one application could run at a time, utilities like the **Calculator**, **Scrapbook** and so on couldn't be accessed. For this reason Apple came up with the idea of Desk Accessories, or DAs. These were mini-applications that were installed into the **System** file itself using a program called *Font/DA Mover*. Once installed, they appeared under the Apple menu and could be used even when another program was running.

When System 7 came along, Apple decided that a far better way of handling things would be to have a version of Multifinder running all the time, and since this means that you can always access more than one application, the concept of DAs became somewhat redundant. You can still put DAs in the Apple menu, but you can also put any other applications there, too. As more and more people upgrade to System 7 (Apple reckons that over 50 percent of Macs are already running System 7.0 or above), the concept of the DA will slowly fade away.

Q *I have a Mac LC and I recently had its RAM upgraded to 10Mb by my dealer. However, when I select **About this Macintosh** from the **Finder** I'm told that I only have 8Mb of RAM available, and my **System** size is now over 4Mb. What's gone wrong?*

A

It's a very common problem. What happens is that the Mac can only normally address (that is, access) 8Mb of RAM. To get the other 2Mb, you must turn on T32-bit addressing from the **Memory Control Panel** (under System 7 only) and restart. Your **System** size has grown because your Mac has tacked the extra 2Mb that it can't currently use on to the size of the **System** file, because it doesn't know what else to do with it. Enabling 32-bit addressing will give you access to the full 10Mb.

You should be warned, incidentally, that some older programs aren't happy with 32-bit addressing. If you find that your Mac crashes when you try to run a program, try turning 32-bit addressing off. If that cures the problem, you should contact the program's distributor about an upgrade **mf**

Jargon Busters

ASCII: stands for American Standard Code for Information Interchange. It is the most common method for storing text files

Bit: the smallest piece of information a computer can store

Bulletin board: also known as BBS, this system lets the Mac user connect up to another computer and collect files or leave messages there

CD-ROM: stands for Compact Disc Read Only Memory. This is like an audio CD but is used for storing programs and data

Front end: the way the Mac presents itself to the user; literally, what you see on the screen

INIT: a small program which expands your Mac's capabilities and lives in the **System** folder

Public Domain: also referred to as PD, this is freely distributable software, available from libraries and bulletin boards

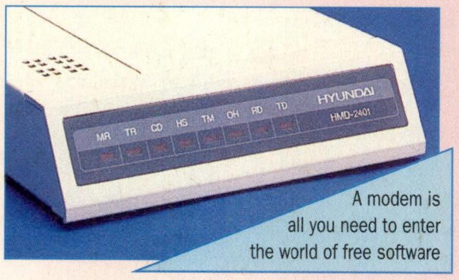
RAM: Random Access Memory. This is where the computer stores data and programs that it's currently working on. When the computer is switched off, the RAM is cleared

Shareware: software available on a try-before-you-buy basis

Shoot-em-up: the type of computer game where the player eliminates adversaries or other objects on screen, usually against the clock

Going on-line...

A Mac, a modem, a telephone line and you're all set to get in touch with other Mac enthusiasts and computer users. Ian Wrigley shows you how to hook up to the vast networked world of comms


HYUNDAI
HMD-2401
MR TR CD HS TM OH RD TD

A modem is all you need to enter the world of free software

You can easily let your computing become a solitary experience – after all, if you don't know anyone else in your immediate neighbourhood with a Mac, who is there to talk to, share discoveries with and so on? Well, more people than you'd think – and all it takes to get in touch is a modem and a phone line.

Over the next few issues we'll be showing you exactly how to choose a modem, how to get connected up and what sort of things you can expect to find when you are 'on-line'. This issue, we give you a taster of what to expect – what sort of questions you should be prepared to ask when you go shopping for a modem, what (if any) extra software you need and where to find all these exotic bulletin boards and information providers.

Buying a modem

This will be the subject of a larger article in the near future, but for now here are a few basic facts about modems, so that you'll have some idea of what you should be asking for.

The word modem is short for MOdulator/DEModulator, and a modem is a device which translates the electronic signals produced by your computer into sounds which can be transmitted over the phone line. At the other end of the line, another modem converts these sounds back into electronic signals and feeds them into another computer. So what you're doing is connecting the two computers together via the phone line. The neat thing is that the computers don't have to be the same make – it's easy to connect, for example, a Mac to a PC, a Sun Workstation or even a mainframe via a modem.

Modems range greatly in price, anything from £100 to £1,000 depending on how fast they work. The faster the modem, the more quickly you will be able to transfer data between your Mac and the computer on the other end of the phone line – and so the shorter your phone calls will be. But, generally, the faster the modem the more expensive it is. Modem speed (strictly speaking, data transfer speed) is usually measured in baud, which is roughly equivalent to bits per second. Common speeds are 1200baud, 2400baud, 9600baud and 14,400baud (sometimes referred to as 14.4Kbaud). To give you some indication, a 2400baud modem should transfer data at a rate of about 240 characters (letters, numbers or whatever) per second – or about 1K every four seconds. You should buy the fastest modem you can afford – it will pay for itself in reduced phone costs. Certainly, these days you shouldn't look at a modem which works at below 2400baud – in fact, almost no-one makes 1200baud modems any more.

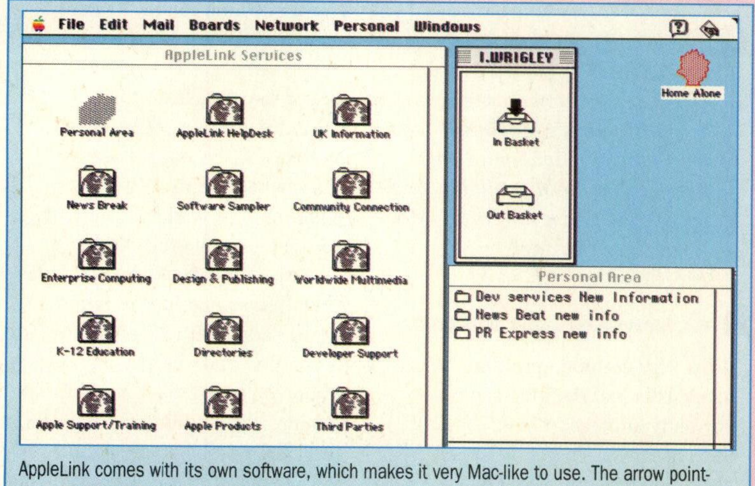
The other factor to bear in mind when shopping for a modem is that more and more suppliers are selling fax modems. These work as standard data modems, but will also send – and sometimes receive – faxes to and from conventional fax machines. This can represent a considerable saving over buying a separate fax machine – but remember, to

Modem speed

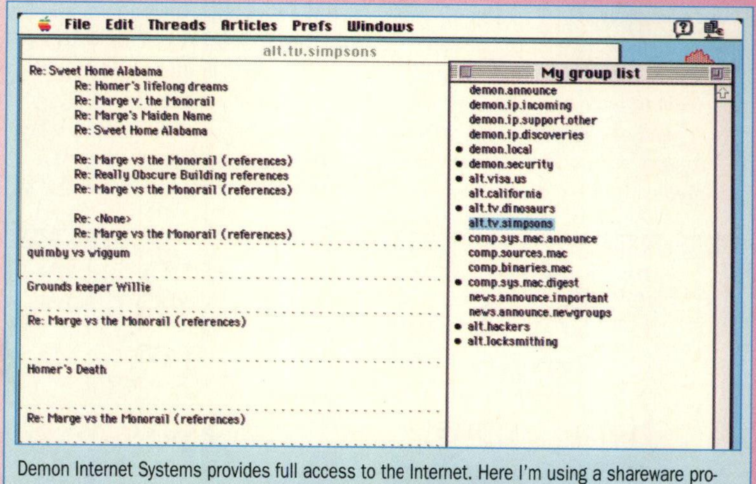
Just to confuse everyone, modem speeds are often quoted in terms of 'V' numbers rather than in baud or bits per second. This is because data transfer rates have been standardised by an international body called the CCITT which, in true international body style, decided that any other method would be far too sensible. So, here are some of the common 'V' standards (remember, you can think of 'baud' as being roughly equivalent to 'bits per second'):

V21	300baud
V22	1200baud
V22bis	2400baud
V32	9600baud

The other common 'V' standards are V42 and V42bis. These are basically error correction and data compression standards which should improve the reliability and speed of a modem; normally if a modem has V42 and V42bis it can transfer data at 14,400baud.


File Edit Mail Boards Network Personal Windows
AppleLink Services
Personal Area
AppleLink HelpDesk
UK Information
News Break
Software Sampler
Community Connection
Enterprise Computing
Design & Publishing
Worldwide Multimedia
K-12 Education
Directories
Developer Support
Apple Support/Training
Apple Products
Third Parties
I.WRIGLEY
In Basket
Out Basket
Home Alone
Personal Area
Dev services New Information
News Beat new info
PR Express new info

AppleLink comes with its own software, which makes it very Mac-like to use. The arrow pointing to the in-basket icon means that there's incoming mail waiting for me


File Edit Threads Articles Prefs Windows
alt.tv.simpsons
My group list

Re: Sweet Home Alabama
Re: Homer's lifelong dreams
Re: Marge v. the Monorail
Re: Marge's Maiden Name
Re: Sweet Home Alabama
Re: Marge vs the Monorail (references)
Re: Really Obscure Building references
Re: Marge vs the Monorail (references)
Re: <None>
Re: Marge vs the Monorail (references)
quimby vs wiggum
Grounds keeper Willie
Re: Marge vs the Monorail (references)
Homer's Death
Re: Marge vs the Monorail (references)

demon.announce
demon.ip.incoming
demon.ip.support.other
demon.ip.discoveries
- demon.local
- demon.security
- alt.visa.us
alt.california
- alt.tv.dinosaurs
alt.tv.simpsons
- comp.sys.mac.announce
comp.sources.mac
comp.binaries.mac
- comp.sys.mac.digest
news.announce.important
news.announce.newgroups
- alt.hackers
- alt.locksmithing

Demon Internet Systems provides full access to the Internet. Here I'm using a shareware program called Nuntius to read news. Subjects aren't confined just to computers!

BT Approval

To connect any device to the phone line legally, it must be BT approved. This is the case whether it's a phone, fax machine, answerphone or modem. You can tell whether a device is BT approved by checking to see if it has a green 'approval' sticker on it. (Note that if it's not approved, it won't necessarily carry the red warning triangle sticker, so the only real check is to look for that green circle.)

Some people use non-approved modems – they are often cheaper, since the approval process is expensive for the manufacturer. However, you should be warned that this is illegal. If you are caught using a non-approved device you could be fined, and your phone could be cut off.

receive a fax your Mac must be switched on when the fax comes in. Some fax modems, such as the Global Village series, automatically power up some types of Mac when an incoming fax is detected – but most don't.

Comms software

If you own a copy of *ClarisWorks* or almost any of the other integrated packages (software which contains several modules, eg word processing, spreadsheet, database, desktop publishing), you will already have enough comms software to get you started, in the form of the comms module. However, if you're serious about comms you may find that the module isn't sophisticated enough, in which case you'll need to get a dedicated comms package.

The cheapest decent program is *ZTerm*, which is shareware (see Jargon Busters). It can be obtained via PD (Public Domain) houses, user groups or (something of a Catch-22) from on-line bulletin boards. The shareware fee is just $30, and many people find that *ZTerm* is perfectly adequate for anything they want to do. If you want a commercial package, you should check out programs like *MicroPhone II*, the *Vicom* range or *Smartcomm II*. All of these have as many features as you can shake a stick at, and are fairly simple to use – *ZTerm*, though, can be slightly daunting to the beginner.

What's out there?

There is a wide range of computers to connect up to, once you've got your modem and comms software. Here are details of some of the better-known commercial services; there is also a large number of privately-run bulletin boards which you can access for the price of a phone call. We'll be looking at them in a future issue.

CIX is a British service which has 'conferences' (discussion groups) on everything from the Mac to motorcycling, computers to campanology and programming to palmistry. There is also a wide range of shareware and PD (Public Domain) programs which you can download. CIX charges £2.40 per hour cheap rate, £3.60 per hour peak rate, and there is a one-off registration fee of £25. You can subscribe on-line by dialling the service using your modem on 081 390 1255 and entering 'new' when you are asked for your user name (have your credit card details handy), or phone the voice line on 081 390 8446.

CompuServe is a giant system based in the US, and has over a million members. Again, it has thousands of files for downloading, and discussions on just about any topic under the sun, although it can seem a little more controlled than CIX. There are a number of access numbers throughout the UK, and the registration fee of £22.95 includes software to help you use the system, a free monthly magazine and a $25 credit towards usage of the system (the cost varies depending on access speed and time of day). For more information call CIS on 0800 289378.

If you're a serious Apple fan, you might want to consider AppleLink. This is Apple's own bulletin board, and anyone who's anyone in the world of the Mac (dealers, software and hardware manufacturers, journalists, consultants, Apple employees…) has an AppleLink account. The system isn't cheap – joining costs £99, and usage charges can be up to 44p per minute – but many people think that it's worth the cost. AppleLink's helpline is on 0800 585682.

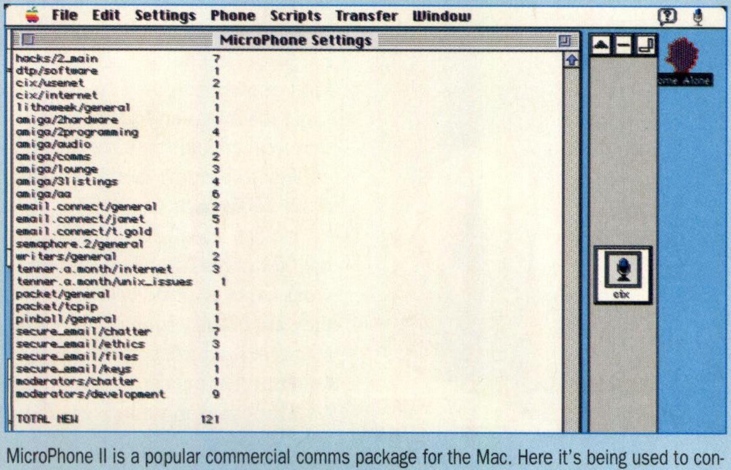
5 tips on buying a modem

- ▶ Buy the fastest modem you can afford.
- ▶ If it's a fax modem, check to see whether it's a send and receive model, or whether it can only send faxes. (All modems can send and receive data, so that's not a problem.)
- ▶ If it's a fax modem, make sure that the software supplied is for the Mac, not the PC.
- ▶ Be sure to specify that you'll be using the modem with a Mac, and make sure that the dealer gives you the correct connection cable – a modem-to-PC cable won't do, it has to be designed specifically for the Mac.
- ▶ If it's important to you, make sure that your modem is BT approved.

Finally, if you're a true techie you could consider subscribing to Demon Internet Systems (DIS). This gives you full access to the Internet – a loose network of tens of thousands of computer systems around the world. However, be warned that this isn't for the faint-hearted – you'll need some extra software and some patience to set the whole thing up. We'll be looking at just what's involved in a future issue, because the Internet is a fascinating source of just about any file or information you could possibly want, on any subject. Best of all, the service is just £10 plus VAT per month. The DIS information line is on 081 343 3881 or, if you've got a CIX account, join the 'tenner.a.month' conference for more details.

Something for everyone

Let's hope that will have given you some idea of what's available when you get connected to the world of comms. In future issues we'll be discussing each of the areas – modems, comms software and service providers – in more detail. If you run a bulletin board which caters either partly or wholly for the Mac, do write in to MacFormat and let us know – that way we can pass on your details to all our readers. **mf**



```
hacks/2_main                 7
dtp/software                 1
cix/usenet                   2
cix/internet                 1
lithoweek/general            1
amiga/2hardware              1
amiga/2programming           4
amiga/audio                  1
amiga/comms                  2
amiga/lounge                 3
amiga/31istings              4
amiga/aa                     6
email.connect/general        2
email.connect/janet          5
email.connect/t.gold         1
semaphore.2/general          1
writers/general              2
tenner.a.month/internet      3
tenner.a.month/unix_issues    1
packet/general               1
packet/tcpip                 1
pinball/general              1
secure_email/chatter         7
secure_email/ethics          3
secure_email/files           1
secure_email/keys            1
moderators/chatter           1
moderators/development       9

TOTAL NEW                  121
```

MicroPhone II is a popular commercial comms package for the Mac. Here it's being used to connect to the CIX (Compunet Information Exchange) bulletin board

Jargon Busters

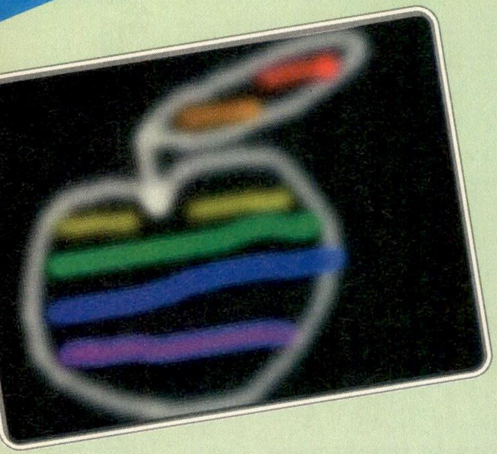
Baud: This is a measure of data transfer speed. The higher the baud rate, the faster the modem transmits the data

Upload: The act of sending a file from your Mac to a remote computer, via a modem

Download: The act of transferring a file from a remote computer to your Mac, via a modem

BBS: Bulletin Board System. This system allows you to log in to a remote computer and leave messages for other users, upload and download files and take part in on-line discussions

Shareware: Try-before-you-buy commercial software



From Acorns to Apples

Ever wondered about studying art or design at college? Wilf Rees discovers why Macs are taking over the educational world and explains how they are used to give college students experience on the same machines they will use in the real world

Acorn has long had the monopoly in educational circles with its BBC and Archimedes computers. However, this has slowly changed with Apple's entry into the market, particularly since the Macintosh range has generally become more affordable. The area most obviously affected is art and design…

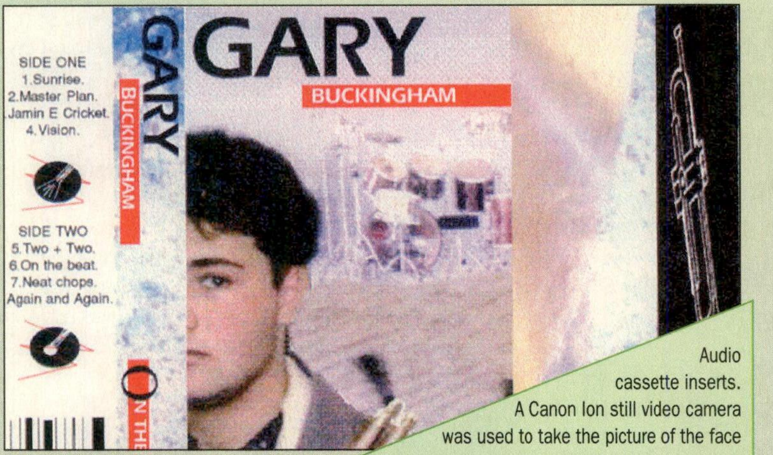
Certain colleges of further and higher education have met the challenge head-on with the introduction of this new technology – with South Tyneside College a prime example. As the college has grown to embrace broader disciplines, it has gained an envied reputation for providing well-managed and effective courses, designed to prepare students for all aspects of the world of work and higher education.

It is difficult not to be impressed when you enter the department of art and design. There is a sense of purpose and commitment among the staff which is reflected in the industrious yet friendly atmosphere.

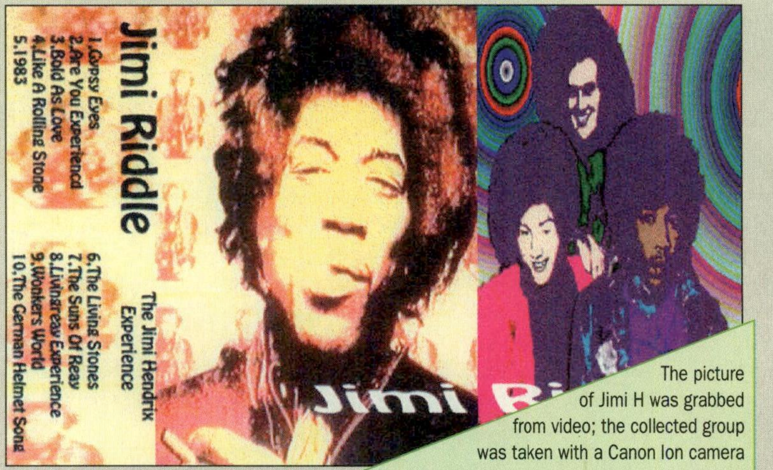
The early days…

Seven years ago the department began its voyage into computerland by buying Ataris, to enable its students to work in computer graphics. These were soon replaced by Commodore Amigas, which gave more scope in terms of performance as well as in the broader range of software available.

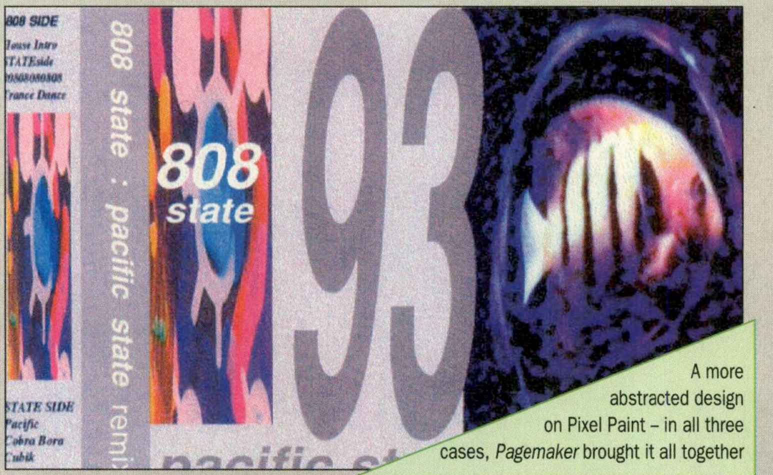
Then Apple's computers began to make themselves noticed and this prompted Head of Department Stuart Langford to begin seriously looking at a whole new range of options. Two Macs were bought to supplement the Amigas, and he very quickly became hooked on their user-friendliness as much as their professional performance – and over the years the department has moved over to using Apple Macintosh machines entirely.


SIDE ONE
1.Sunrise.
2.Master Plan.
Jamin E Cricket.
4.Vision.
SIDE TWO
5.Two + Two.
6.On the beat.
7.Neat chops.
Again and Again.
GARY BUCKINGHAM
GARY
BUCKINGHAM
N THE

Audio cassette inserts. A Canon Ion still video camera was used to take the picture of the face


Jimi Riddle
The Jimi Hendrix Experience
1.Gypsy Eyes
2.Are You Experiencd
3.Bold As Love
4.Like A Rolling Stone
5.1983
6.The Living Stones
7.The Suns Of Reay
8.Livingreay Experience
9.Wonkers World
10.The German Helmet Song
Jimi

The picture of Jimi H was grabbed from video; the collected group was taken with a Canon Ion camera


808 SIDE
House Intro
STATEside
0808080808
Trance Dance
STATE SIDE
Pacific
Cobra Bora
Cubik
808 state : pacific state remi
808 state
93
pacific st

A more abstracted design on Pixel Paint – in all three cases, *Pagemaker* brought it all together

The staff felt collectively that this option was the way forward. Even in the days of the 128K Macs and Mac Pluses, the art department staff felt that the way the Mac was developing, it was inevitably going to have a huge impact on design, typography and related areas.

When the funding became available, about four years ago, they bought their first Mac Pluses, IIcxs, colour monitors and laser printers.

Justifying the Mac

Most people still think of computers in terms of IBM PCs and their clones, after all these are the machines that sit on the average office desk. But Langford did his research and discovered a survey which suggested that over 90 per cent of design companies that use computers of any kind, use Macs. Furthermore he found that 60 per cent of print and print origination houses use Macs, and in colleges, HND, degree, higher degree colleges, Macs also predominate.

His belief is that his students are not just being trained on the right kind of machine, they are using the same machines and software that they will encounter when they leave college to become members of the design community.

He has often found that, even on the odd occasions when students on work experience do encounter PCs, they are usually running the same software – which is increasingly being ported over from the Mac.

This came about because the Mac was designed to be easy to use – you didn't have to understand computers or learn complicated key combinations to use one. This meant that more and more software developers wrote programs for the Mac, until Macintosh users had all the best software – certainly in terms of drawing, painting, graphics manipulation and visual presentation.

Langford feels that it is this versatility – bringing together components from diverse sources and manipulating them to produce a desired end product – that is the Mac's greatest strength.

Hybrid imagery

While some of his students concentrate on desktop publishing on the Mac, others branch off into an extension of this; what he refers to as 'hybrid imagery'. This means the bringing together of images from a multitude of sources, such as drawings scanned in from sketchbooks, colour fabric samples either scanned or photographed with a still video camera, and digitised images grabbed from video tape – either shot on the students' own tapes or from other sources – or simply created using a drawing package.

Despite the technology revolution, employers and other colleges are not geared up to handle the student who arrives for an interview brandishing a floppy disk. So it is essential that the output of a student's work be of the highest possible quality – or at least as good as financially possible.

South Tyneside places great emphasis on ensuring that the print-out reflects the original as near as possible. Consequently output is sent to the department's Apple LaserWriter, now past the 50,000 copy mark and still going strong. This prints out at 300 dpi (dots per inch) and is the same kind of machine used by design studios and other professional Macintosh users to proof their own work.

South Tyneside Mac set-up

Macs: initially Mac Pluses and IIcxs with colour monitors although the studio has added a number of LCs since
Printers: Apple LaserWriter for black and white, with HP (Hewlett Packard) Paintjets and DeskWriter 550Cs for colour output
Peripherals: The Screen machine – a digitiser for video grabbing
Software: *Adobe Photoshop,* for full-colour manipulation of imported images from a variety of external sources; *Pixel Paint,* for drawing on screen as well as importing and adapting digitised images; *PageMaker,* a desktop publishing system (on PCs as well as Macs) which combines text, images and graphics on the page

Any colour print-outs – a design for an audio tape cassette for instance – are generated using Hewlett Packard Paintjets and DeskWriter 550Cs. These give good results at reasonable prices.

Digitising cards

In fact a mixture of techniques, involving a range of software and hardware, is employed to help the students realise their design ambitions. Inevitably everyone has their own favourite 'bit of kit' and Langford's pet is the Screen Machine from Fast Electronics.

The staff at South Tyneside College had looked long and hard at various digitising cards, and finally decided on this one. They felt that the quality of the software supplied, and the extremely efficient level of technical support, have made this decision fully justified.

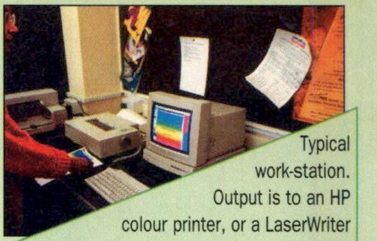
Image manipulation is mostly controlled by *Adobe Photoshop*, which manipulates images – both colour and black and white – and produces various effects such as posterising. Images can also be rotated and variables like tints, colour balance and colour separation can also be controlled. It is widely recognised to be the major software package for image manipulation and processing.

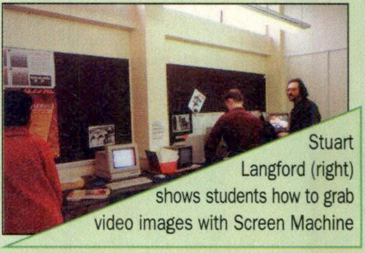
Direct input

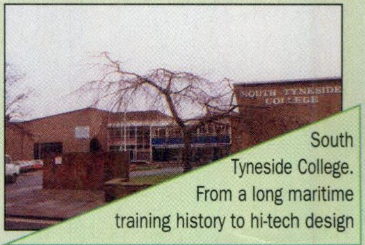
In addition *Pixel Paint* is used as a means of direct input – drawing on screen – as well as a source for importing digitised images and working on them.

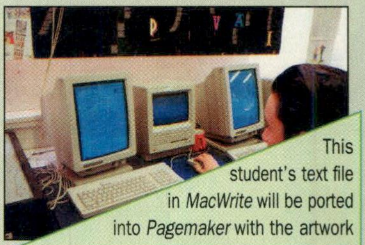
The software that allows all these visual elements to be combined with text and graphics is *PageMaker* by Aldus. In fact many Macintosh users prefer its big rival, *QuarkXPress*, but this hasn't been available to PC users until recently. Since *PageMaker* is equally at home on a PC, it makes sense for a college like South Tyneside to ensure that its students' experience is as broadly applicable as possible. Both programs are WYSIWYG (What You See Is What You Get) and allow you to design pages on screen, adding text and scaling images to size.

But the acid test is how the students fare when they go out into the real world. South Tyneside has a specialist Mac trainer (who is also a graphic designer) who comes in to offer expert advice. This has proved invaluable during the students' work placements and they often find the work they produce during these assignments being published. You can't ask for a better testimonial. **mf**


Typical work-station. Output is to an HP colour printer, or a LaserWriter


Stuart Langford (right) shows students how to grab video images with Screen Machine


South Tyneside College. From a long maritime training history to hi-tech design


This student's text file in *MacWrite* will be ported into *Pagemaker* with the artwork

Jargon Busters

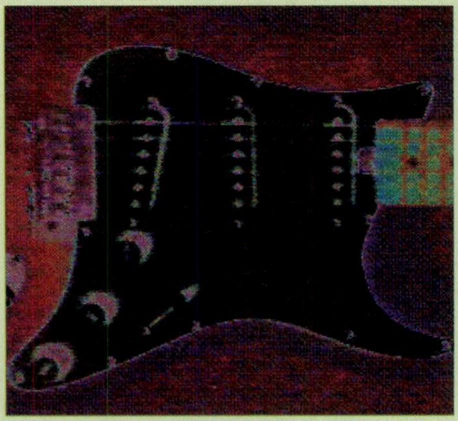
Colour balance: adjusting the colours on under or over exposed pictures so that they appear natural – usually a case of making sure that the whites are white

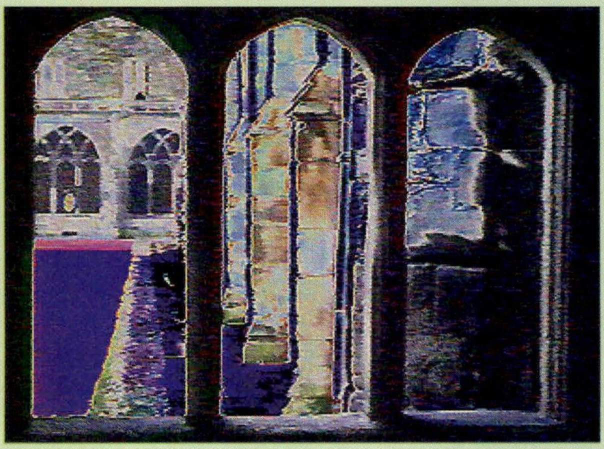
Colour separation: the colour image is separated out into three colours – cyan, magenta and yellow – plus black. These versions can be output as film – which is then used by the printers to rebuild the image using identically-coloured inks

Digitising card: a card that plugs into the back of the Mac which enables it to capture video images

Posterise: a technique whereby an image is built up using dots to give an impressionist effect

Still video: camera (like the Canon Ion) which converts images into information on a floppy disk (typically 50 erasable images per floppy). Can also be linked to a TV


From a capture using a Canon Ion camera, the image was digitised with Screen Machine, processed with *Photoshop*, and then used as part of an advertising layout


A *Photoshop* file displaying a combination of several processes. The final product assumes a quality which has integrity 'in its own right'

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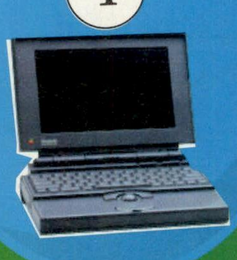

4

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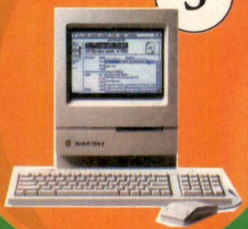

5

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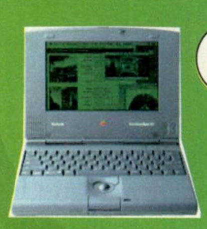

6

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There's a wealth of public domain and shareware available for the Macintosh; the problem is sorting the wheat from the chaff. That's what we'll be doing every issue in our regular PD section, where we check out the very best – and the very worst – in freely-distributable Mac software

SHAREWARE ZONE PD

Essential programs

FREEWARE

Gatekeeper

FREEWARE

Disinfectant

One of the first things that you should get hold of is an anti-virus utility. Having this running in the background gives you a sense of security – you can be sure that your Mac won't get infected without you realising it. (For more information on viruses see *Mac Answers*, page 89).

The two most popular PD anti-virus utilities are *Disinfectant* and *Gatekeeper* – either one will do fine. They both have System Extensions (or INITs, for anyone using a System version prior to 7.0) which keep a track of any new disks inserted into the floppy drive, and any applications which are launched. Both scan for all known viruses, but *Gatekeeper* will also look for any suspicious activity – in a similar way to SAM (Symantec Anti-virus for Macintosh), the commercial package. This extra activity watching should help to protect you from any new viruses or Trojan horses – although it can interfere with some installation programs, and so should be turned off when you're installing new applications on to your Macintosh.

Both of these programs are freeware; as **MacFormat** went to press, the latest version of *Disinfectant* was 2.9 (on your cover disk!); the latest *Gatekeeper* is 1.2.7. They are updated as soon as new viruses appear, and are posted to many major bulletin boards. In future issues, we'll make sure that we keep you up to date on the latest versions of these programs via our news pages – remember, an old version of an anti-virus utility is almost worse than not having one at all, because while you're thinking that your Mac is safe, a new virus might be busy infecting it.

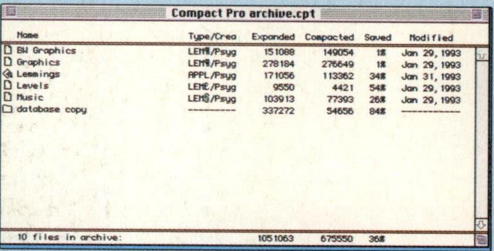
SHAREWARE

Compact Pro $25

Another highly useful program is *Compact Pro*, a file-shrinking utility from Bill Goodman. Basically, this neat little program will take a file and produce from it an 'archive' which is smaller in size than the original.

This is useful in a number of situations: for instance, if you have a file which is too big to fit on a floppy disk, compressing it may solve your problem. The other main use of programs like *Compact Pro* is when you are transferring files via modem: the smaller the file, the faster it will be transferred and so the less time you'll spend connected to the other person.

There is a wide variety of commercial compression programs available, including one – *StuffIt* – that started life as a shareware utility.



```
Compact Pro archive.cpt
Name              Type/Crea   Expanded  Compacted  Saved  Modified
BW Graphics       LEM¶/Psyg     151088     149054     1%  Jan 29, 1993
Graphics          LEM¶/Psyg     278184     276649     1%  Jan 29, 1993
Lemmings          APPL/Psyg     171056     113362    34%  Jan 31, 1993
Levels            LEM£/Psyg       9550       4421    54%  Jan 29, 1993
Music             LEM§/Psyg     103913      77393    26%  Jan 29, 1993
database copy     ---------     337272      54656    84%  ------------
10 files in archive:           1051063     675550    36%
```

Compact Pro: a sophisticated, fast and easy-to-use file compression utility. Once you have imported files and saved the archive, the amount of space saved is displayed

However, *Compact Pro* has found favour with many Macintosh users because it produces very small archives which are quick both to compress and decompress.

The program will cope with archives produced by *StuffIt* 1.5.1 – an earlier version than is currently available, but still a standard format for compressed files – and can extract files which have been 'binhexed'. Binhex is a method of turning Mac files into plain text so that they can be transferred by e-mail; if you've never come across the term, you're unlikely to need the facility, but for many people this feature alone makes the program invaluable.

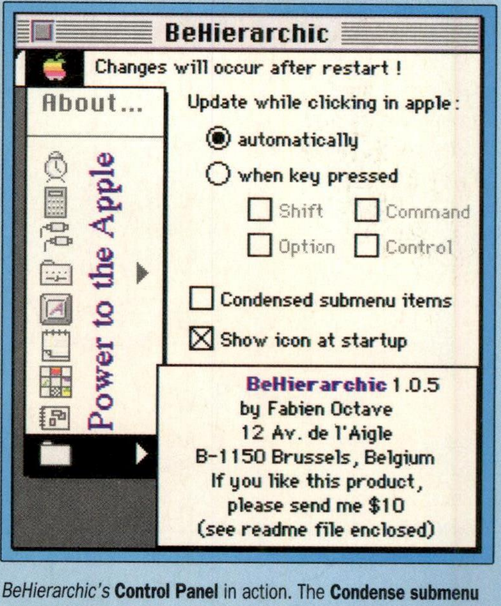
Compact Pro can also produce files known as 'self-extracting archives'. These are archives which automatically decompress when they are double-clicked – so you don't need a copy of *Compact Pro* in order to extract the original file. And all this for just $25…

SHAREWARE

BeHierarchic $10

This is one of those programs that doesn't seem particularly useful until you've installed it – and then wild horses wouldn't drag it out of your **System Folder**. Written by Fabien Octave, it adds sub-menus to the menu – something that really should have been there in the first place.

What this means is that any hard disk alias or folder alias in the menu items folder will



BeHierarchic

Changes will occur after restart !

Update while clicking in apple :

● automatically

○ when key pressed

☐ Shift ☐ Command

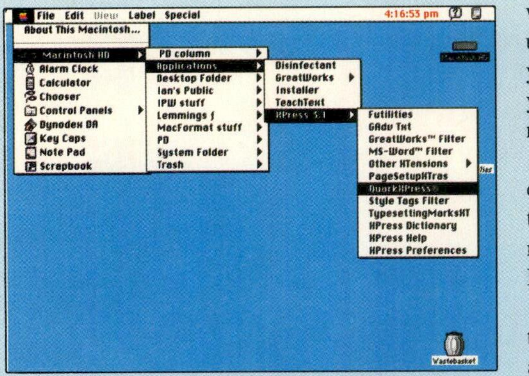
☐ Option ☐ Control

☐ Condensed submenu items

☒ Show icon at startup

BeHierarchic 1.0.5
by Fabien Octave
12 Av. de l'Aigle
B-1150 Brussels, Belgium
If you like this product,
please send me $10
(see readme file enclosed)

BeHierarchic's **Control Panel** in action. The **Condense submenu items** option, if checked, will print the names of any items in submenus in a narrower font


File Edit View Label Special
4:16:53 pm
About This Macintosh…
Macintosh HD
Alarm Clock
Calculator
Chooser
Control Panels
Dynodex DA
Key Caps
Note Pad
Scrapbook
PD column
Applications
Desktop Folder
Ian's Public
IPW stuff
Lemmings ƒ
MacFormat stuff
PD
System Folder
Trash
Disinfectant
GreatWorks
Installer
TeachText
XPress 3.1
Futilities
GAdv Txt
GreatWorks™ Filter
MS-Word™ Filter
Other XTensions
PageSetupXTras
QuarkXPress®
Style Tags Filter
TypesettingMarksXT
XPress Dictionary
XPress Help
XPress Preferences
Wastebasket

BeHierarchic in operation. A maximum of four sub-menus are available, but this should be enough to burrow you down far enough to find most of your files

automatically have a sub-menu appended to it; in turn, any folders in that sub-menu will themselves have sub-menus.

The most obvious use for this is with the **Control Panels** folder alias that's present in the menu. Instead of having to open the whole window to access a **Control Panel**, you can now just select the item you want from the menu. But the real power comes when you realise that you can put an alias of your whole hard disk in the menu – which means that you can access everything on the disk from the menu, without having to open any windows at all.

BeHierarchic takes the form of a **Control Panel**. The user interface is simple, with only a couple of options available – basically, you just drop it in your **System Folder**, make sure that it's turned on and **Restart** your Mac.

There are only a couple of limitations to the program. The first is that, if your hard disk organisation changes radically (if you move everything about, create loads of new folders and so on), the first time you access the menu you may find that it takes a couple of seconds before the menu appears. Secondly, there's a limit of four sub-menus which will appear from any given folder or disk alias; however, that isn't too much of a limitation – you can always put an alias of a deeply nested folder in the menu if you want to access its contents frequently.

There are a couple of commercial alternatives to this program – most popularly *Now Menus*, part of the *Now Utilities 4.0* package – but *BeHierarchic* performs just as well, and has the advantage of being much cheaper.

2:34 FREEWARE

SuperClock!

If you're a confirmed clock-watcher, *SuperClock!* is an invaluable addition to your Mac. It's a *Control Panel* which will place a digital clock display at the right-hand side of your menu bar, in whatever font, size and colour you choose. Things such as whether to display the seconds, whether the display should be in 12- or 24-hour mode, whether to display 'am' and 'pm' and so on are all user customisable, and take effect immediately on your screen – there's no need to restart after you've changed the settings, as is the case with many utilities of this type.

SuperClock! also incorporates a timer – which can be set to count down from a specified value or to count up from zero – and an alarm clock, which means that you can dispense with the *Alarm Clock* DA supplied in the **System** by Apple.

Finally, you can even get your Mac to chime the hours, half-hours and even quarter-hours using any built-in sound (a novelty at first, but something which soon wears thin). If you're a real glutton for punishment, you can even have different sounds for the different times (boing on the quarter hour, eeep on the half hour and 'No way, man!' on the hour).

There are some things which Apple really should have built in to System 7 from the beginning; *BeHierarchic* is one of them, and *SuperClock!* is another.

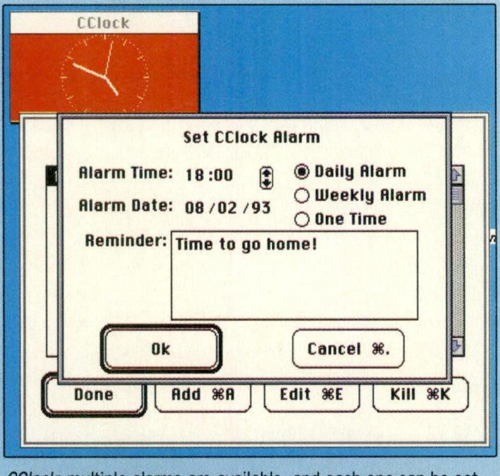
SHAREWARE

CClock $15

As an alternative to *SuperClock!*, you might want to try *CClock*, a shareware program from Stephen Martin (a wild and crazy guy…). This is a neat little program which requires MultiFinder or System 7: it simply displays a clock in a background window on the desktop.

The clock's display can be digital or analogue, and you can also have the date and amount of free memory on show – although only when the clock's display is in digital mode.

The program allows you to set multiple alarms, each one with a text message to accompany it, and the whole thing only uses 160K when it's running – although anyone with a 2Mb Mac will probably blanch at losing that amount of RAM. *CClock* isn't quite as elegant as *SuperClock*, but what it does, it does well.


CClock
Ok
Cancel ⌘.
Done
Add ⌘A
Edit ⌘E
Kill ⌘K

Set CClock Alarm

Alarm Time: 18:00

Alarm Date: 08/02/93

● Daily Alarm

○ Weekly Alarm

○ One Time

Reminder: Time to go home!

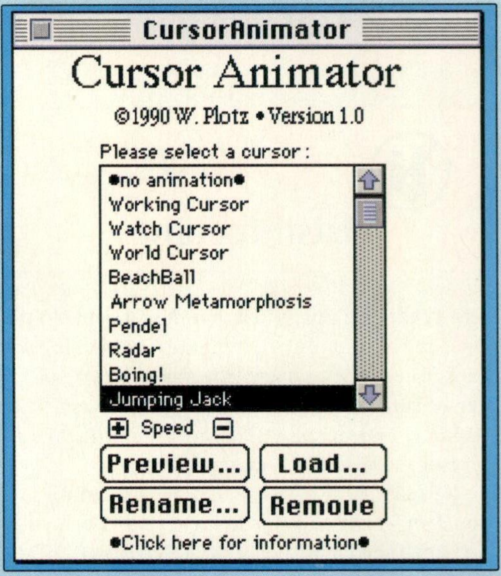
CClock: multiple alarms are available, and each one can be set to display a different message. Alarms can be set to go off once only, or on a regular basis

Interface enhancers

FREEWARE

Cursor Animator

Bored with the normal spinning watch cursor while your Mac's working? Try *Cursor Animator*, from Wilhelm Plotz. It's a simple **Control Panel** which allows you to load up different animated cursors – plenty are provided with the program. My favourite's 'Jumping Jack', which shows a little stick-man bouncing up and down, but there are also spinning balls, globes, pendulums and just about anything else you can think of. Not the most productive piece of software in the world, but it does add that personal touch to your Mac.


CursorAnimator
•no animation•
Working Cursor
Watch Cursor
World Cursor
BeachBall
Arrow Metamorphosis
Pendel
Radar
Boing!
Jumping Jack
Speed
Preview…
Load…
Rename…
Remove
•Click here for information•

Cursor Animator

©1990 W. Plotz • Version 1.0

Please select a cursor :

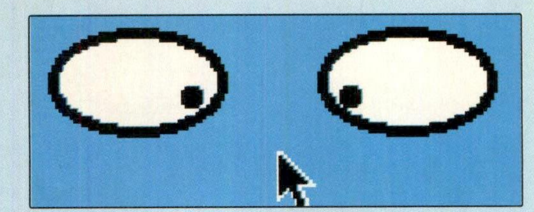
Supplied with *Cursor Animator* are a wide range of moving cursors to replace the boring clock that the Mac uses as standard. To use a different animation, just click on its name from the **Control Panel**

FREEWARE

MacEyes

Is Big Brother watching you? He will be if you have *MacEyes*, a freeware program from Duncan Sinclair. All this program does is put a pair of eyeballs on your desktop, from where they can watch your cursor as it moves around the screen. It's rather disconcerting, to say the least, to close a window and find your Macintosh staring accusingly back at you!

The program only requires 30K of RAM to run, so you can have it sitting in your **Startup Items** folder without worrying that it will prevent you from running your 'real' applications.



MacEyes is *the* way to give your Mac a personality of its own. The eyes follow the cursor as it moves around the screen – closing a window and finding them staring at you can be extremely disconcerting!

FREEWARE

Darkside

If you want a screen saver but you can't afford *After Dark*, then *DarkSide*, by Tom Dowdy, may be just the job. It's a multi-module program, which means that there are several different plug-in savers which work with the same basic shell.

DarkSide is an application, rather than a **Control Panel** device, so you need to make sure that it starts up each time you switch on your Mac; System 6 users can do this by specifying it as a startup item from the **Special** menu, System 7 users can put an Alias in the **Startup Items** folder within the **System Folder**.

Then it's just a matter of selecting the module that you want, customising the settings and letting the program sit in the background, ready to take over when your Mac has been inactive for a pre-set amount of time. The program only requires 36K of RAM to run, so even if you've only got a 2Mb machine you'll be able to have *DarkSide* running in the background.

Customisation, both of the main screensaver and of individual modules, is simple – the *DarkSide* customisation dialogue box is always available from the *File* menu, and another menu option changes depending on the module that's been loaded. There is provision for 'sleep now' and 'never sleep' corners of the screen – move your cursor to the 'sleep now' corner and the screen saver automatically kicks in, while the 'never sleep' corner makes sure that the saver never engages. Time-to-sleep is user-definable, and the Mac will automatically wake up when you move the mouse or press a key.

If you're a programmer, there's a shell to help you write your own modules; just plug in your own code to do what you want with the screen, and the main program will call it when necessary.

The author says that a future version of the program will be in the form of a **Control Panel** device, and will cure the only known problem: that any Notification Manager events (such as the alarm clock going off, *QuickMail* informing you that there's mail waiting and so on) will appear over the top of the screensaver display, since the program can't intercept them. Even this, though, doesn't stop *DarkSide* from being an excellent, free alternative to a commercial screensaver.

SHAREWARE

ExtraColor $10

Short and sweet, this one: Giuseppe Carnevale's *ExtraColor* simply changes the colour of the cursor – mine's now a fetching shade of blue. The program will also change the Desktop pattern depending on whether you've set your monitor to colour or black-and-white mode.

It seems to work fine; it certainly didn't crash any of the applications I tried. Whether you want to pay $10 just for a different coloured cursor is another matter, though…

FREEWARE

The Grouch

Oscar the grouch is a character from Sesame Street; Eric Shapiro is a man responsible for many small children wiping the contents of their parents' hard disks. Confused? Read on…

The Grouch is a System Extension which animates the process of emptying the Wastebasket. Instead of just turning from full to empty, now Oscar pops his head up, sings a line from a song ('Oh I love trash' or 'I love it because it's trash') and then sinks back down. Then the Wastebasket is cleared. This is seriously cute, and you'll find yourself duplicating files and then trashing the copies just to watch him appear.

Unfortunately, some children found this just a little too appealing: parents would return home to discover that every single file on the Mac's hard disk had been thrown away just to appease the great god Oscar.

To combat this rather unfortunate problem, author Eric Shapiro has now also released a stand-alone version of the program, which comes packaged with the original. This places a window on the screen, with half a dozen Wastebasket icons in it. Click on an icon and Oscar appears – without the need to trash Daddy's company report. Or click on 'Random play' and guess which trash-can Oscar will appear from. Hours of endless fun for all the family…

Just to make sure that you realise the dangers of Oscar, the 'about' box contains this message: 'Warning! Children tend to throw lots of files into the trash in order to see and hear Oscar.'

If you don't have kids, *The Grouch* is an essential addition to any self-respecting Mac. If you do, think very carefully before installing this System Extension.

What is PD and shareware?

PD, or public domain, software is software which can be freely shared around between users – there's no fee to pay. It's available from PD houses (companies which specialise in distributing this sort of software), user groups and bulletin boards.

Strictly speaking, most free software isn't PD – it's actually 'freeware'. This is because placing a program into the public domain means that the author relinquishes all control over it – it can be changed by anyone, people don't have to include the documentation files when they distribute it and so on. Most programmers don't want this to happen – they've spent some time writing the software, and they would like to still have some control over it. So instead, the author allows their program to be freely distributed, but doesn't relinquish control. They can then specify things like whether commercial PD houses can sell the program, the fact that it must be accompanied by all documentation files when it's distributed and so on. For simplicity, though, most people still refer (slightly incorrectly) to this as PD.

Shareware is slightly different: it's a form of try-before-you-buy software distribution. The idea is that you can obtain the programs from the same sources as PD, but that if you like the software, you send the author a contribution – normally in the range of $10 to $40 (most programs are written in the States). This saves the author a great deal of cost in terms of marketing, distribution and the like.

Unfortunately, many people treat shareware as if it were PD – they use the programs all the time, but never send payment to the author. True, sending money overseas isn't as convenient as just writing someone a sterling cheque, but only by sending your registration fee will you encourage the author to continue developing both the program you're registering and any others that they have in the pipeline. Much shareware is just as good as commercially available software, and costs far less; if you don't pay, you could be contributing to the author's decision to sell his or her next work commercially instead of through the shareware system. So the moral is clear – if you use it, register it!

We've let you know the status of each program that we review here – PD, freeware or shareware – and, if it's shareware, what the registration fee is. Remember, you don't pay whoever you get the shareware from – you send payment directly to the program's author.

Communications breakdown

SHAREWARE

ZTerm 0.9 $30

ZTerm is one of the best-loved comms programs available for the Mac. Why? Because it has many features that rival commercial programs, and its registration fee is just $30.

At its most basic, *ZTerm* can be used as a simple terminal emulator – it supports VT100 and the ANSII standard used by many PC-based bulletin boards. However, there's a lot more in the program than that; David Alverson has produced a highly professional package here, and one which any modem owner should take a good look at before buying a commercial program for many times the price.

Modem connection is supported either with XOn/XOff, RTS/CTS or no handshaking; speeds of up to 57,600baud are supported, and data bits, parity and number of stop bits are all selectable via pop-up menus. V23 (as used by Prestel and some other services) is not, however, supported.

File transfer can be one of a number of different protocols: the program supports XModem, YModem, ZModem (it was one of the first to do so) and CompuServe's proprietary Quick-B and B-Plus protocols. Oddly enough, it doesn't support Kermit, a very old standard still used by some mainframes (and yes, it was named after the frog). Still, the chances of you having to transfer files to or from a system which doesn't support at least XModem are fairly low these days – certainly all bulletin boards and commercial online databases have at least XModem support.

Once you've entered all the connection details for a particular service you can save this configuration, along with the phone number, so that you can automatically connect just by selecting a menu item.

The major new feature in version 0.9 is scripting. This is a form of programming which means that you can set *ZTerm* to automatically perform functions such as logging on to a system, collecting mail and so on. If you write your script correctly, you can do everything with one mouse-click – and because it all happens automatically, connections are likely to be much faster, since you're not having to type stuff in yourself, making errors along the way.

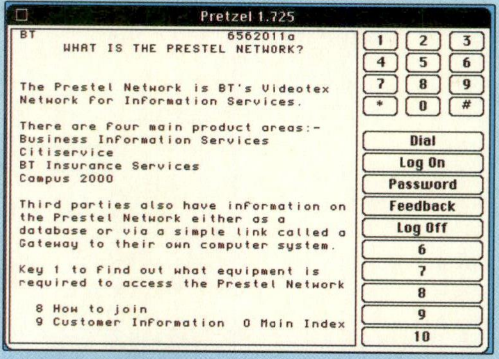
Although the scripting is still fairly limited – there's no 'watch me' feature, where a program translates a user's actions into a script automatically – it is good enough for many common tasks. Without any scripting, *ZTerm* was very good; with it, the program is excellent – and certainly well worth the $30 registration fee.

SHAREWARE

Pretzel $10

One of the problems with most comms programs is that they have no support for the Viewdata system, as used by services like Prestel. This is basically a system whereby a fixed screen size is used, and 'pictures' are made up out of groups of letters, numbers and small solid blocks (à la Ceefax and Oracle). Fortunately, Paul Russell has come up with an admirable solution to the problem: the *Pretzel* desk accessory (DA). This is a small, neat program which allows you to connect to Viewdata systems at any speed up to 19,200baud (assuming that the host system has a fast enough modem).

There are a number of user-configurable buttons in the *Pretzel* window, which can be set to do things like dial the bulletin board, log on, enter your password and send commonly-used commands. Because systems like Prestel make a great deal of use of the numeric keypad, there are number buttons in the window, so that you can do more or less everything using the mouse. There are also buttons for * and #, which are the other commonly used keys on Prestel – the hash mark is, of course, available directly from the keyboard as **[option] [3]**, but having it as a button is much more convenient.



```
BT                                 6562011a
     WHAT IS THE PRESTEL NETWORK?


The Prestel Network is BT's Videotex
Network for Information Services.

There are four main product areas:-
Business Information Services
Citiservice
BT Insurance Services
Campus 2000

Third parties also have information on
the Prestel Network either as a
database or via a simple link called a
Gateway to their own computer system.

Key 1 to find out what equipment is
required to access the Prestel Network

  8 How to join
  9 Customer Information   0 Main Index
```

If you access Prestel or any other Viewdata system, the *Pretzel* DA is an essential addition to your software catalogue. It allows you to access the service quickly and easily

The only real complaint with this program is that configuring the buttons requires hacking about in the file with *ResEdit*; although the procedure's fairly easy, it's not really a job for a novice. A configuration utility (either as part of the program or as a stand-alone utility) would have been nice. Still, once it's configured (and you don't actually have to configure the buttons anyway, if you don't want to – and if you're happy typing modem command directly) *Pretzel* is robust and easy to use. If you need to access Viewdata systems, it can be highly recommended.

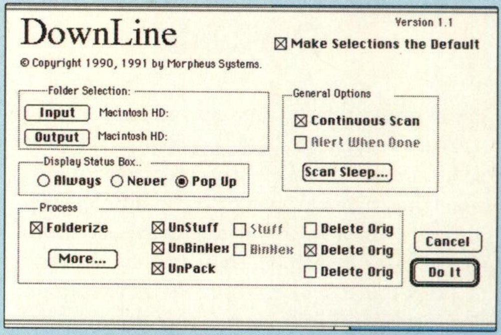
Incidentally, although Paul Russell doesn't ask for any money to be sent to him, he does request that a donation of £10 be sent to Oxfam or another charity – a nice idea, and one which more and more authors of programs which would otherwise be released as freeware are using.

SHAREWARE

DownLine $25

If you do much in the way of comms with your Mac, you'll find that *DownLine* is a real boon. Eric Bloodworth's utility automatically processes BinHexed and *StuffIt*-compacted files in the background, so there's no need to manually extract the contents of archives.

The best way to use the program is to set up a 'drop folder', to which you download any files from bulletin boards or wherever. *DownLine* automatically scans the folder (you can set up how often the folder is scanned from an **Options** dialogue box) and, if it finds any compressed files, will automatically un-Stuff or un-BinHex them and place them in an output folder. So, more often than not, by the time you've logged off from the bulletin board and quit your comms package, the program is ready for use.



DownLine

Version 1.1

☒ Make Selections the Default

© Copyright 1990, 1991 by Morpheus Systems.

Folder Selection:
Input Macintosh HD:
Output Macintosh HD:

Display Status Box..
○ Always ○ Never ● Pop Up

General Options
☒ Continuous Scan
☐ Alert When Done

Process
☒ Folderize
☒ UnStuff ☐ Stuff ☐ Delete Orig
☒ UnBinHex ☐ BinHex ☒ Delete Orig
☒ UnPack ☐ Delete Orig

DownLine is a powerful program which will be found useful by anyone who handles *StuffIt* archives or who downloads files which have been converted to text using BinHex

DownLine will work the other way, too: it can be set to Stuff or BinHex files if you wish, again simply by putting them in the input folder.

The program has also implemented a drag-and-drop feature, which means that any archives already on your hard disk can be decompressed simply by dragging them on to *DownLine's* icon. The program will decompress them and, optionally, delete the archive too. Such is its sophistication that, if you set the correct option, it will even place files which have been compressed 'loose' in an archive into a folder, so that you don't have to collect them all together when you've finished.

Future enhancements to the program will include support for *Compact Pro* archives – at present, the program's only weakness is that it can't handle this format. I can't wait – this is an excellent package, and adding *Compact Pro* support will make it nigh-on perfect.

To encourage users to register, the trial version of the program released on bulletin boards and the like will always be one version behind that shipped to registered users – so to ensure that you're using the most up-to-date version of the program, you must send in your $25. Considering the range of things that *DownLine* does, it's worth every cent.

Diversionary tactics

SHAREWARE

Maelstrom $15

Maelstrom is one of the best games available on the Mac – shareware or commercial. It's a version of the arcade classic Asteroids, but in full colour and with loads of great sampled sounds.

The program requires System 6.0.7 or above and a 256-colour or greyscale monitor (any size) to run; the display is centred on any monitor larger than 13 inches.

Author Andrew Welch has done a truly stunning job in creating this game. For those not familiar with Asteroids, you pilot a small spaceship which has become stuck in the middle of an asteroid storm. Large boulders fly across the screen – if they hit you, you're history.

To complete each level, you must destroy the boulders using your ship's laser weapon, but each time you hit one it fragments into a number of smaller particles. And these particles fragment into even smaller chunks of rock before you can eradicate them totally. You can manoeuvre around the screen using your thrusters, but – because this is outer space – when your thrusters stop firing, you continue drifting along forever. To stop you must turn and thrust in the opposite direction; but too much power and you'll start back the way you came. If collision with a boulder seems unavoidable, you have a shield which you can activate – but there's only a limited amount of shield power, and once you've used it up you're on your own. Control of your thrusters and laser is via user-definable keys.

To this basic concept Andrew has added some great extra touches. An enemy spaceship appears every so often: hit it enough times and it will explode, but all the time it's firing at you. And it's not only the alien spaceship that you have to worry about: indestructible steel balls fly around the screen on some levels, and all you can do is deflect them with you lasers. To help you, 'Acme supply canisters' appear from time to time; if you manage to run over one of these, you'll be rewarded with extra shield power, multiple-firing lasers, extra-strength lasers and various other goodies. Finally, if you manage to rescue a partially-destroyed friendly spaceship that pops up now and again, you get an extra life.

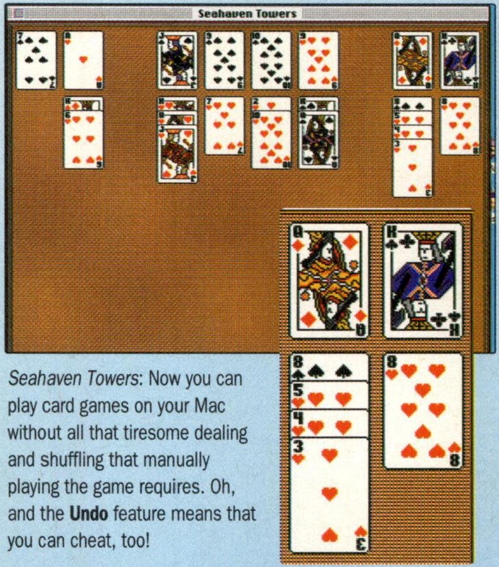
Maelstrom really is excellent – if you've got a colour Mac, you have no excuse for not owning a copy. Unless, of course, you actually want to get any work done…

Apart from anything else, you *must* support an author whose release notes include thanks to The Red Hot Chilli Peppers, Nirvana and Frank Zappa for providing such great music to program to!

SHAREWARE

Seahaven Towers $20

There are many 'patience'-style card games available on the Mac, and *Seahaven Towers*, by Art Cabral, is one of the best. The aim is simple: to pile all the cards of each suit on to the Ace. However, although the rules are easy to learn, gameplay can be fiendishly tricky. Fortunately, there's an 'Undo' feature, so you can take back moves that lead you into a dead end – although, of course, Real Players Never Undo.



Seahaven Towers: Now you can play card games on your Mac without all that tiresome dealing and shuffling that manually playing the game requires. Oh, and the **Undo** feature means that you can cheat, too!

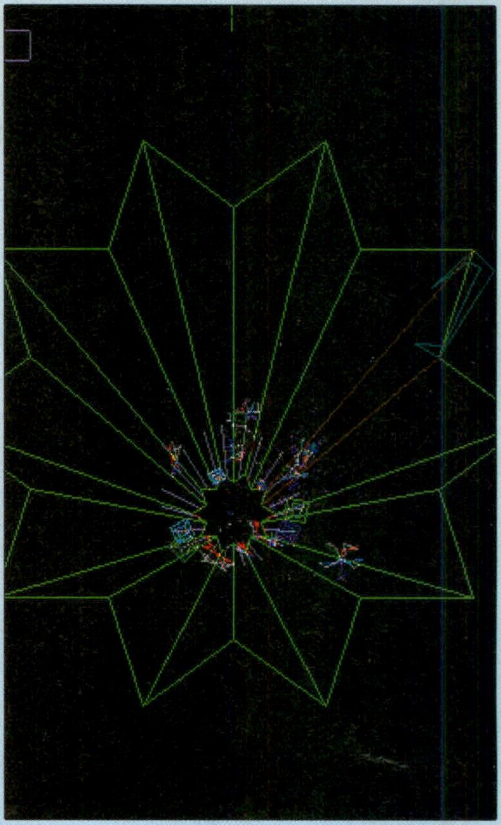
Computer card games seem a bit pointless until you try them – after all, why bother switching on your Mac when you can just grab a deck of cards from the top drawer? Well, the advantage is that all the boring bits of playing cards – like dealing, shuffling and trying to find that Jack of Clubs that must have slipped down the back of the sofa – are done by the Mac, so you can concentrate on playing the actual game. It's not uncommon to find that one quick game of *Seahaven Towers* has turned into a mammoth five-hour session without you realising.

SHAREWARE

Storm 0.9 $15

This is a beta release of a game which, according to the documentation, hasn't yet been finished because no commercial developer was interested in the project. This is incredible – *Storm*, based on the arcade game *Tempest*, is superb.

The gameplay is difficult to describe, although you'll pick it up as soon as you start playing. Basically, you are in charge of a laser weapon which rotates around the edge of a tunnel; the enemy objects come towards you down the walls of the tunnel and the object is to blast the hell out of them before they arrive. Or something.



Storm is based on the arcade game *Tempest*. Steer your ship around the outside of the walls, blasting all the aliens as they zoom towards you. It's fiendishly tricky…

Anyway, *Storm* is a great game of hand-eye co-ordination; you can either use the mouse or keys to control your laser, and the higher levels are virtually impossible to complete without hours of practice.

Because this isn't the finished version, there are only nine different levels; if the game ever gets completed, it will include many more and a level editor so that you can create your own. The authors say that, while the game is free, they wouldn't mind donations to encourage them to finish the project. I hope that enough people send in money – because if this is a beta version, the finished thing will be impressive indeed.

SHAREWARE

Diamonds $20

Another great game, this time by Oliver Dreer. And, sadly, another game that refuses to be screengrabbed – so you'll just have to get hold of the program if you want to see how impressive it looks when you play it.

You control a bouncing ball, and the idea is to bounce into – and thus destroy – bricks ranged around the screen. The bricks come in different colours, and you must destroy all of one colour before you can get to the rest. The task is made harder because the ball only bounces up and down – you control whether it goes left or right, but you can't stop it or slow it down. And some of the bricks will swallow the ball, losing you a life. All of this is done to the accompaniment of (fortunately optional) House-style music.

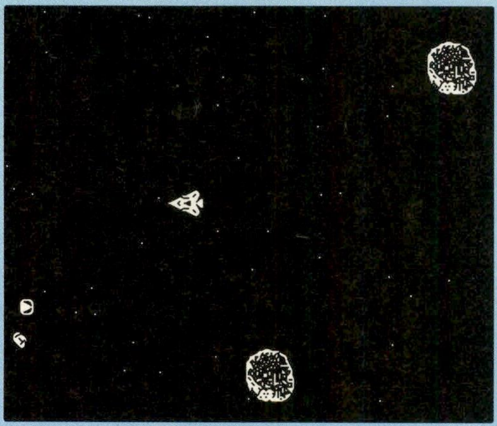
Diamonds is another of those 'hard-to-understand-the-appeal-then-suddenly-you're-hooked' games; don't get a copy unless you're prepared to find yourself sitting in front of your Mac at two o'clock in the morning, thinking 'One more time and I'll get past this level.'

SHAREWARE

Star 'Roids $10

'Not,' I hear you cry, 'another Asteroids game?' Oh yes. But this game has been specifically written for people with black-and-white monitors, so if you were upset because you couldn't play *Maelstrom*, at least you can play this instead.

Jason Ferrara's $10 shareware program is fairly good, and would probably get a better review had I not already looked at *Maelstrom*. It does have its points: holding down the 'fire' key produces a constant stream of bullets, so at least you won't wear out your keyboard. And, although it was written for 9-inch black-and-white monitors, it can be played on any system (although turning your monitor to black-and-white via the **Monitors Control Panel** will speed things up considerably). It's also harder to stay alive for any length of time: the tiny asteroids zip across the screen at a frantic rate, and it's not uncommon to lose at least one ship on the first level. To help you a little in this, holding down the fire key produces a continuous stream of bullets, so at least you won't wear out your keyboard playing the game.



If you've got a monochrome Mac, *Star 'Roids* is about the best Asteroids-style game that you'll find. It's not as good as *Maelstrom*, but it's perfectly acceptable

On the down side, the collision detection routine seems a little hit-and-miss (ho ho): sometimes asteroids seem to pass right through the centre of your ship without any complaint, while at other times a clear miss is registered as a hit. Still, anyone with a mono monitor will probably love it; it's certainly worth checking out.

SHAREWARE

Solarian II $25

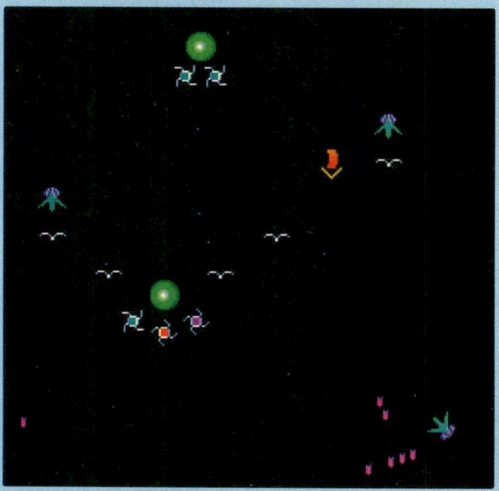
Solarian II is another superb shoot-em-up that deserves a place on the hard disk of any Mac with a colour monitor. It's (loosely) based on the arcade classic *Galaxians*, and will be immediately familiar to anyone who's played one of the many hundreds of variants of *Space Invaders* that have appeared over the years. However, as is almost always the case with top-quality Mac games, there are twists in *Solarian* which make it just that bit more challenging and interesting than a straight copy would have been.

For a start, the variety of aliens is enormous; the screen is full of differently-shaped, differently-behaving meanies, all with one aim in their lives: to end yours. Some just sit there and drop the occasional bomb, while others dive out of the skies at high velocity. There are homing bombs, exploding presents (!), Goodyear Blimps… you name it, it's out to get you.

You control your ship using the mouse; however, moving the mouse to the left doesn't immediately mean that your ship moves to the required position – instead, it trails slowly behind a mouse position pointer, making life just that little bit more interesting.

Your weaponry comprises a normal laser gun (which can be upgraded to double-shot or rapid-fire if you manage to pick up floating packages that slowly make their way down the screen), a guided missile, a limited shield, and 'scissors' (no idea what these actually do…). This means that as well as manipulating the mouse, your other hand is spread across the keyboard for things like guiding the missile, detonating it at the right time, activating the shield and so on. By the time you've finished concentrating on all of this, your attention has wavered and you're history. Oh well, start again…

Solarian II can be highly recommended. The graphics are great, the samples are excellent, and all in all it's one of the best shoot-em-ups around.



Solarian II: If you hanker after the good old days of *Space Invaders* and *Galaxian*, you'll love this program. It's been updated rather, though, with loads of new challenges

Imagein that

FREEWARE

Imagery 1.8

Imagery is an extremely powerful program, written by Jeff Lewis. If you use your Mac to deal with pictures and images, this should definitely be on your hard disk.

The program's task in life is to convert image files created in a range of formats into PICT2 – which virtually all Mac applications can read – and TIFF format. It supports drag-and-drop operation, and will handle files created in applications running on PCs, Atari STs, Commodore Amigas and various other platforms.

The formats that *Imagery* handles are far too numerous to list; however, here's an idea of what the program will cope with:

- Four generic file types: CompuServe GIF, JPEG, CompuServe RLE and raw data.
- 17 Atari ST formats, including Neochrome and Degas Elite files.
- 14 PC formats, including .PCX, .BMP, .IMG.
- Six Mac formats, including *Photoshop*.
- Two Apple II formats.
- Six Amiga formats, including IFF and HAM.
- 12 Unix and X-Windows formats including Sun Raster and PBMPlus files.
- An object-oriented format: *Lotus 1-2-3's* PIC.

First, you must select a format that you want the file converted to; this can be TIFF, PICT2 or GIF. Alternatively, you can just view the file. Then you select your input file. The program 'intelligently' tries to determine what format the input file is: it looks at the file's three-character name extension (for example, '.PCX') and compares it with a list of extensions that it knows about; if you're loading a Mac file, *Imagery* will look at the file's 'signature' (data, appended to a file, which is invisible to the user) and again compares that against an internal list. If none of these methods work, you can try 'raw', which allows you to specify the file's internal format (an option for experts only, that one…).

Once the program has worked out the file's format, the output is automatically written to disk – and that's it. If you're using System 7, you can take advantage of 'drag and drop', and just drag your input file on top of the *Imagery* icon – then everything will happen automatically.

This really is an impressive program. Really, the only thing that it would be nice to see in a future version is support for PICT input files – at present they aren't supported – since some people do want to convert PICTs to TIFF or GIF format. However, apart from that there is very little to criticise about the program. The user interface, while sparse, is very easy to get the hang of, and drag-and-drop means that converting large numbers of files is simple.

Highly recommended if you ever find the need to convert images from other computers; after all, some people buy *Photoshop* to do just this one task, and a free program which takes the place of an £800 one can't be bad!

FREEWARE

Mandelzot

If fractals are what get you all hot and bothered, then *Mandelzot 3.0*, by Dave Platt, is the program for you. This is probably the most fully-featured fractal creation package around, with loads of options for controlling just about every parameter you can think of.

Fractals are a form of recursive mathematical equation which, basically, can produce extremely beautiful pictures when the mathematical data is translated into a coloured image. And the really fascinating thing about them is that they are infinitely magnifiable: pick a section of a fractal image, zoom in on it and you'll find that the resulting image is equally interesting.

You can go on magnifying small areas of your first image for as long as you want, and you'll never 'run out', because the image is defined by a mathematical equation.

A lot of material has been written about fractals, so if you're interested in the mathematical theory you should be able to find plenty of books on the subject. (Be warned, though, the subject can get extremely complex if you go into it deeply enough. Certainly, a fair grasp of mathematics is required to get the hang of some of the concepts involved.)

One of the most popular sections of the fractal world is something called the Mandelbrot set – so-called because it was named after a mathematician called Mandelbrot – and that's the area that *Mandelzot* was written to explore.

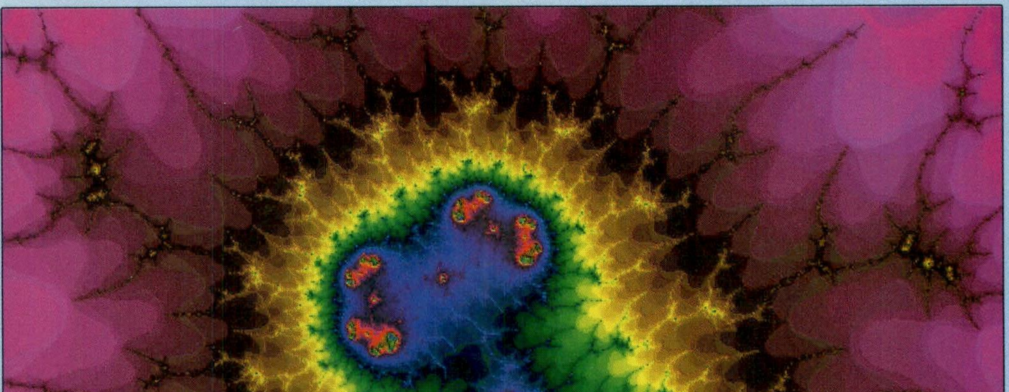
A great deal of work has obviously gone in to the creation of this program. The range of possible options is vast, encompassing such esoterica as dwell bands, escape radius, method of drawing, colours and mathematical calculation mode – if you've got a Mac with a built-in maths co-processor, things will be much faster than if you're running a Classic, LC II, IIvi or one of the other machines without a co-processor.

If you just want to see the images, and you don't want to get involved with the mathematics of the whole thing, you will find that there are plenty of example co-ordinate files supplied with the program. These are particular parts of the Mandelbrot set that other people have discovered; you just load in the co-ordinates and the program sets to work plotting the image. It's been written so that it can work in the background, if you have enough memory – you can get on with word processing, spreadsheeting or whatever and *Mandelzot* will continue working, albeit more slowly than when it's working in the foreground.

The program has been written with expansion in mind: programmers can write code to explore other recursive functions, and these extensions can then be imported into the main program – again, a sample extension is provided.

One thing you should realise is that drawing Mandelbrot sets is a very processor-intensive task. While the office Quadra fairly zoomed along, and produced the image at the bottom of this page in a minute or so, an LC II with no maths co-processor was less than a tenth of the way through the same image half an hour later. If you're going to do any serious exploration, you should probably set the Mac off before you go to bed – that way, the image should be drawn by the time you get up in the morning. And if you really become hooked, invest in a maths co-processor if your Mac doesn't already have one – the increase in speed is incredible.

The Mandelbrot set is considered a little passé these days: other, even more beautiful mathematical spaces have been discovered recently, and no-one likes to be seen exploring outdated mathematical spaces. However, if you've never seen a fractal before, *Mandelzot* is well worth checking out – and its expandability means that before long other modules, exploring new areas of mathematics, are bound to be available.



The person who discovered the particular set of mathematical co-ordinates which produce this rather strange display named it 'Neural Brain'. There are plenty of sample co-ordinates on the disk to play with, or you can discover your own

Where to get it

You can obtain PD and shareware from a number of different sources. First, there are the commercial PD houses (check the adverts in this magazine for addresses). These are companies which collect software, package it on to disks and then sell it on to you.

Next come bulletin boards. To access a bulletin board you'll need a modem, of course, but once you're connected you will find that there's a wealth of software available. Two of the most popular boards are CIX (pronounced 'kicks' and short for the Compulink Information eXchange), and CompuServe, an enormous US-based service with over a million subscribers. Both boards charge you a connection fee as well as your normal phone charges – CompuServe is more expensive, but has local phone numbers in several UK cities, whereas CIX only has London numbers.

Both boards have a wealth of software on them, from the latest anti-virus programs through fonts, games, business programs and utilities.

Finally, many Mac user groups have PD and shareware libraries, where members can purchase software for the price of a disk plus duplication.

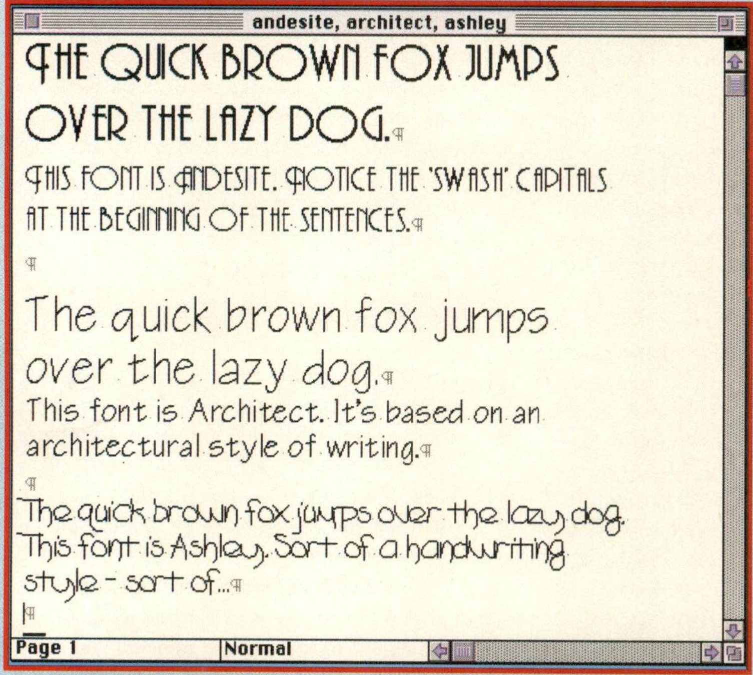
Mac bulletin boards

The following are voice numbers – you can also subscribe to CIX on-line by setting your modem to anything between 1200 and 9600baud, 8 bits, no parity, one stop bit, and phoning 081 390 1244.

CIX: 081 390 8446
CompuServe: 0800 289378

Fontastic value

There are plenty of PD and shareware fonts available; they range from the superb to the truly dreadful. On this page are 12 examples, of which perhaps Architect is the best-looking. However, if you need that 1920s look, perhaps you will find Ballet Engraved perfect; if you're going for weird and wacky, Saint Francis may be just what you have been looking for



THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.¶

THIS FONT IS ANDESITE. NOTICE THE 'SWASH' CAPITALS AT THE BEGINNING OF THE SENTENCES.¶

¶

The quick brown fox jumps over the lazy dog.¶

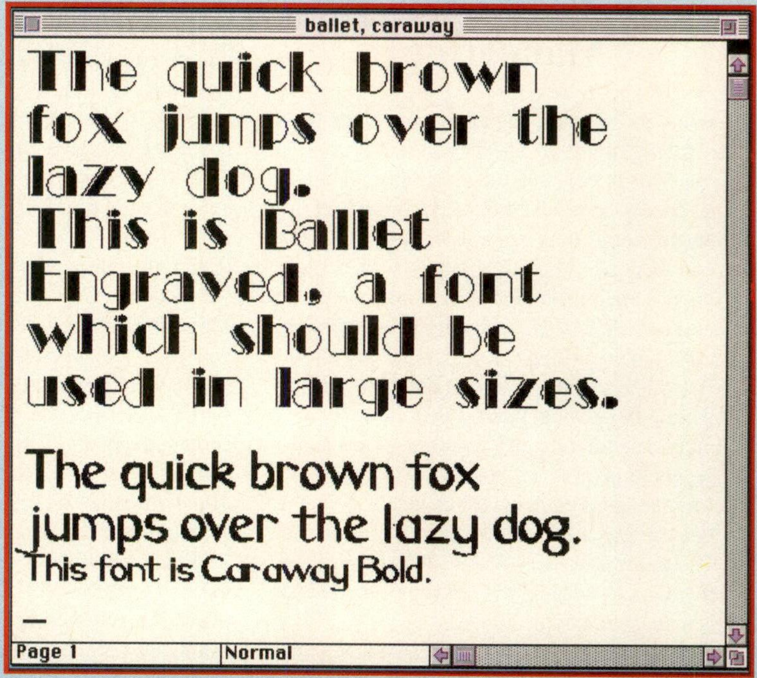
This font is Architect. It's based on an architectural style of writing.¶

¶

The quick brown fox jumps over the lazy dog. This font is Ashley. Sort of a handwriting style – sort of...¶

¶

Andesite is a TrueType font by James Harris, based on Letraset's Plaza typeface. It's shareware – Harris requests a fee of $25. Architect is a free TrueType font by Hank Gillette, and Ashley is a $10 shareware PostScript font based on a handwriting style



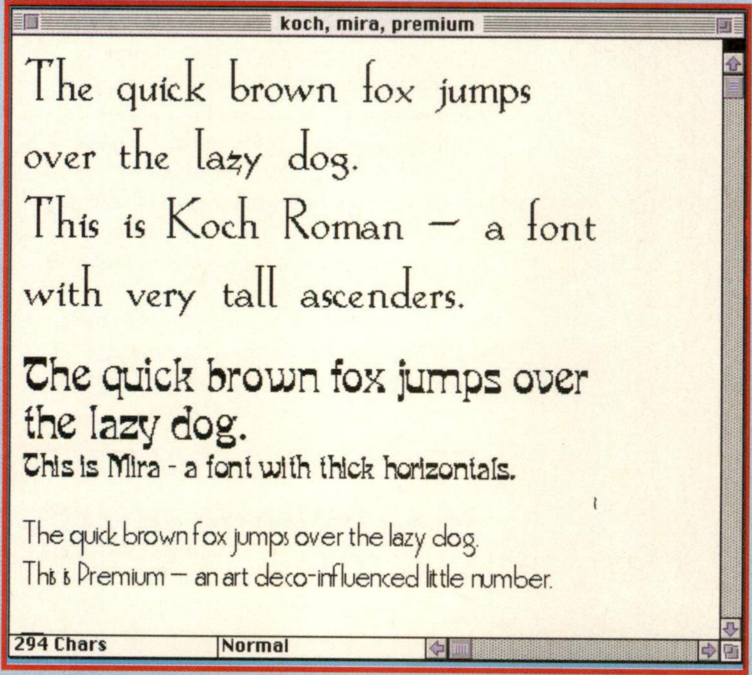
The quick brown fox jumps over the lazy dog.

This is Ballet Engraved, a font which should be used in large sizes.

The quick brown fox jumps over the lazy dog.

This font is Caraway Bold.

Ballet Engraved is a sample PostScript Type 1 font released by American company FontBank Inc to encourage you to check out their other commercial fonts. Caraway Bold is by Peter Jensen, and is a PostScript Type 1 font. Jensen requests a $10 shareware fee



The quick brown fox jumps over the lazy dog.

This is Koch Roman – a font with very tall ascenders.

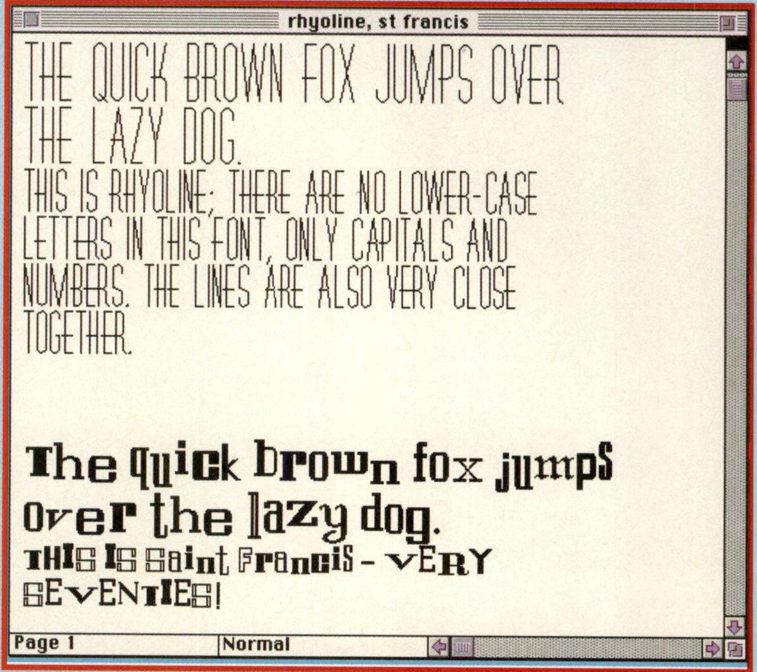
The quick brown fox jumps over the lazy dog.

This is Mira - a font with thick horizontals.

The quick brown fox jumps over the lazy dog.

This is Premium – an art deco-influenced little number.

Koch Roman was designed by Stephen Moye, based on a font drawn by Rudolf Koch in 1922, and is free. Mira is also a free TrueType font, this time by Sam Wang. Premium Thin is another James Harris TrueType creation, with his usual $25 fee requested



THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

THIS IS RHYOLINE; THERE ARE NO LOWER-CASE LETTERS IN THIS FONT, ONLY CAPITALS AND NUMBERS. THE LINES ARE ALSO VERY CLOSE TOGETHER.

The quick brown fox jumps over the lazy dog.

THIS IS Saint Francis - VERY SEVENTIES!

Rhyolite is a PostScript Type 1 font from James Harris; the shareware fee is $20. Saint Francis is a PostScript version of Apple's San Francisco screen font, designed by Hank Gillette. It's free. However, since a TrueType version is now supplied as standard, it's less useful than it used to be

Premium Public Domain

Premium Public Domain: *the* source for all the best in Macintosh™ PD and shareware. All the software on our disks is tested to make sure that it conforms to our high standards – and if you have problems, we'll replace disks without question. All orders are processed within two working days.

We only have space here to show a small fraction of the disks we sell; send an SAE for the full list.

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Ravenshead,
Notts NG15 9DR.

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Business

B101 BiPlane – superb shareware spreadsheet. This could be all you ever need! Plus **MiniWriter** (excellent word processor in DA form) and more.

Utilities

U101 7 for Seven – seven essential 'hacks' to improve System 7; **DownLine** – automatically decompresses StuffIt files when they're dropped into a folder; **System Error table** – find out what those error numbers really mean; **CClock** – put a coloured clock into a window in the background; plus many more.

Games

G101 Maelstrom – possibly the best version of the arcade classic Asteroids to be found on any computer. Requires 256-colour or 256-greyscale monitor.

G103 Oxyd – a 'Marble Madness'-style extravaganza, this game can be played by one player, or two players across an AppleTalk network. Colour or mono.

G104 'Peaceful' games – Chess, Backgammon and Mombasa, a game of memory and skill.

G106 Solarian II – from the same author as Maelstrom, Solarian is a great version of the 'Galaxians' shoot-em-up. Requires a 13" or larger, 256-colour monitor.

Comms

C101 ZTerm – the classic shareware comms package, ready-configured for popular UK bulletin boards.

Calling shareware libraries bulletin boards user groups

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Alternatively e-mail MACFORMAT on AppleLink or sanderton@cix.compulink.co.uk on Internet

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Chooser

MacFormat software

We have compiled a range of products for 20 different categories of software, with the games category itself being broken down into five sections. In all cases, although we have tried to establish a current market price (including VAT), it's worth shopping around – and certainly try your local dealer.

If you are buying by mail order, remember that using a credit card gives you an extra layer of protection – if the vendor goes out of business you can get compensation from the credit card company.

Shopping around is even more important In the case of games software. Because there are so many distributors and dealers offering the same games, we have not made any specific distributor recommendations.

Expect to find a good selection of games from the larger operators like MacLine (081 642 2222), MacWarehouse (0800 181 332), Computer Warehouse's Mr Games (071 724 4104) and so on, as well as from specialists like Mindscape (0444 246333) and Electronic Arts (0753 549442).

Clearly we have not yet had time to review many of these products. However, once we've completed a couple of issues we will be in a better position to include a rating against each piece of software reviewed, along with the issue number and date.

Another point to bear in mind is that there's no PD or shareware listings here – heaven knows what the page count would be if all these titles were included. In a future issue we promise to put together as complete a round-up as possible though.

PD and shareware aside, we've still been selective with our current listing in that we've tried to put a price-ceiling on the products mentioned. We could list software that's edging towards the £1,000 mark but somehow we feel you won't be interested – if this isn't the case then write and let us know!

Next issue *Chooser* will focus on hardware products – where you'll be able to find the low-down on...deep breath...memory expansions, accelerators, printers, scanners, CD-ROM drives, adaptor cards, connectors, controllers, modems, fax modems, colour monitors, greyscale monitors, display boards, graphics tablets, floppy drives, hard drives, removable drives, video boards and...phew...Macintosh computers of course! See you there...

Name	Maker	Distributor	Phone	Price	Comments
Accounting					
AppliCount	Applisoft	Applisoft	0763 241034	£116	5-user version for small business – also 25-user educational version
Astra	Townsend Mooney	Townsend Mooney	0625 617960	£646	Multi-user accounts package. Stock lists, bar codes, point-of-sale, etc
Bill-IT 4 5.0	ShopKeeper	MacWarehouse	0800 181332	£116	Consolidates invoicing, sales, billing, accounts receivable and so on
Budget	Access Accounting	Access Accounting	0206 322575	£29	Add-on to Home Accounts, weekly and monthly cash flow forecasts
CashFlow	Access Accounting	Access Accounting	0206 322575	£41	Add-on to Classic Accounts, weekly/monthly cash flow forecasts
Classic Accounts	Access Accounting	Access Accounting	0206 322575	£93	For small business, keeps track of customers, automatic VAT etc
Costeem	Townsend Mooney	Townsend Mooney	0625 617960	£764	Estimating package for ad and design agencies
Crystal Accounts	Quadport	Quadport	061 274 3797	£347	Straightforward package for beginners
dbsPay	DP Systems	DP Systems	0202 722554	£229	Small-business payroll system: P45, P14, P60, P35 and so on
Esteem	Townsend Mooney	Townsend Mooney	0625 617960	£764	Estimating package for printers
Home Accounts	Access Accounting	Access Accounting	0206 322575	£53	Keeps track of income and expenditure: bank balances plus reports
MacMoney		Softline Distribution	081 642 2255	£105	Entry-level accounting package
Overture	Townsend Mooney	Townsend Mooney	0625 617960	£264	Integrated entry-level package – sales, purchase and nominal ledgers
PettyCash	Access Accounting	Access Accounting	0206 322575	£59	Replaces manual cash book: instant balance, simple analysis, and so on
Ritz Accounting	Ritz Software	Townsend Mooney	0625 617960	£441	Package for small businesses – can calculate cash VAT
Silver Cashbook	Europay GB		071 381 6348	£195	Straightforward electronic cashbook for the smaller business user
CD-ROMs					
A Silly Noisy House		Optech	0252 714340	£44	Interactive exploration CD-ROM for children aged three and upwards
Aesopolis		KimTec	0202 888873	£73	An interactive world of Aesop's fables for children of all ages
American History	Computer Vistas	Computer Vistas	0101 914 654 9717	$80	Tour America's history on the interactive, multi-media CD-ROM
Animal Encyclopedia		Optech	0252 714340	£69	2,000 animals selected by top naturalists from the British Museum
ArtClips		KimTec	0202 888873	£220	Essential range of EPS clip art
BMUG PD ROM		KimTec	0202 888873	£37	Vast collection of public domain and shareware programs for the Mac
Coates Impressionism		Optech	0252 714340	£53	From Gaugin and Renoir to Monet and Manet
Creepy Crawlies	MDI	Optech	0252 714340	£79	The inside facts on the most horrible, ugly creatures on earth
Desert Storm	Warner New Media	Optech	0252 714340	£34	Coverage of the Allied forces campaign in Kuwait
DeskTop Photography		KimTec	0202 888873	From £99	Three volumes of photography in TIFF format for DTP work
Dinosaurs	MDI	Optech	0202 888873	£135	Up-to-date guide to dinosaurs and everything we know about them
Discis Story Books		KimTec	0202 888873	From £29	12 interactive story books for children
Ecodisc	ESM	ESM	0223 65445	£176	Interactive CD-ROM that enables you to manage a wildlife sanctuary
Educorp Shareware		KimTec	0202 888873	From £29	Collection(s) of PD and shareware software
Exotic Japan	Voyager	KimTec	0202 888873	£73	1,600 examples of traditional Japanese music, speech and illustrations
Facelift Fonts	Pixel Productions	Pixel Productions	081 876 1385	$149	Anti-aliased screen fonts for Aldus Persuasion, Macromind Director, etc
GAIA		KimTec	0202 888873	£184	Environmental reference set for the planet Earth
Grolier Encyclopedia (1992)		Optech	0252 714340	£288	Holds all 21 volumes with updated text and illustrations, plus video support
Grooves	MDI	Optech	0252 714340	£116	90 high-quality royalty-free sound clips across a wide range of styles
Image Warehouse	MDI	Optech	0252 714340	£206	Royalty-free clip art, backgrounds, textures and graphics
Just Grandma and Me	Brøderbund	Softline Distribution	081 642 2255	£45	Interactive CD book for children
LifeSaver	MDI	Optech	0252 714340	£116	Interactive multi-media course on First Aid
Dictionary of the Living World	MDI	Optech	0252 714340	£116	A multi-media dictionary of life on Earth
Mediasource Libraries		KimTec	0202 888873	£290	Ten volumes of image and audio libraries for the Mac
Merriam Webster's Dictionary		KimTec	0202 888873	£146	The Merriam Webster's Dictionary for children and adults of all ages

Name	Maker	Distributor	Phone	Price	Comments	Rating
Right Images		KimTec	0202 888873	£184	Series of images with a space theme	
Rodney's Wonder Window	Voyager	KimTec	0202 888873	£29	23 escapades that will delight and amuse small children	
Schubert's Trout Quintet	Voyager	Kim-Tec	0202 888873	£37	Musical exploration and explanation	
So I've Heard	Voyager	KimTec	0202 888873	£28	Vols 1-5: a series of guides to the history of Western Classical music	
Strauss – Tone Poems	Voyager	KimTec	0202 888873	£44	Explore his music with three of his best regarded works	
Stravinsky's Rite of Spring	Voyager	KimTec	0202 888873	£73	Rite of Spring: includes a complete guide to this striking work	
The Baby File	Optech	Optech	0252 714340	£38	From conception to birth – everything you need to know	
The Family Doctor		Optech	0252 714340	£129	DIY medical guide with question and answer diagnostic section	
The Madness of Roland	HyperBole	Active Distribution	081 752 0260	£60	A book that can be read from the point of view of five different characters	
Timetable of History	Software Toolworks	Mindscape	0444 831761	£117	Multi-media chronology of world events and scientific discovery	
Verbum Interactive		KimTec	0202 888873	£37	Multi-media issue of Verbum magazine	
Clip Art						
Collector's Edition	Adobe	Adobe	081 547 1900	£118-£217	Patterns, textures, symbols, signs etc for DTP and design work	
Kuma Clip Art	Kuma Computers	Kuma Computers	0734 844335	£29-£116	Complete range (on 75 floppy disk) from maps to animals to business	
Screen Caffeine Art		Computers Unlimited	081 200 8282	£293	Collection of quality colour graphics – 224 images in PICT format	
WordPerfect Clip Art	WordPerfect	Word Perfect	0932 850500	£65 each	Five figure libraries with over 400 images	
Communications						
AppleLink	Apple	Apple Link	0800 585682	£95	Apple's proprietary e-mail network software	
Classicom	Vicom	Vicom	0202 293233	£100	Simple to use comms software, ideal for accessing bulletin boards	
Hayes Connect	Hayes	Hayes	0252 775500	£93	Enables the sharing of modems over LocalTalk networks	
MacLink Plus		Principal Distribution	0706 831831	£187	Mac/PC file transfer and translation package	
MicroPhone II		Computers Unlimited	081 200 8282	£235	Communications package	
Microsoft Mail 3.1	Microsoft	Microsoft	0734 270000	£275	Microsoft's e-mail package, cost is for 5-user pack	
QuickMail 2.5.1	CE Software	Frontline Distribution	0256 20534	£175	Popular e-mail package with new improved server architecture	
SmartCom II	Hayes	Hayes	0252 775500	£116	Easy-to-use comms package for Hayes-compatible modems	
VersaTerm		Principal Distribution	0706 831831	£116	Comms and terminal emulation package	
Vicom Connect	Vicom	Vicom	0202 293323	£217	Upgradable, widely compatible comms package/terminal emulator	
White Knight	Mac in a Box	Mac in a Box	071 403 6000	£147	Programmable general comms software	
Databases						
4th Dimension		ACI	0625 536178	£816	Relational database with submodules that are standalone applications	
Address Book Plus	Power Up Software	Axiom	081 941 8898	£94	Customisable address book – £141 with Letter Writer Plus	
Catbase Light 3.0	BBF Publishing	BBF Publishing	0920 871866	£347	Formats database at source for easier publishing	
DAtabase		Softline Distribution	081 642 2255	£100	Flat-file database	
DataPivot 1.0		Principal Distribution	0706 831831	£229	Produces a variety of reports from flat-file or relational databases	
Dynodex	Portfolio Systems	Computers Unlimited	081 200 8282	£82	Powerful address book program; can print to Filofax-size pages	
FileMaker Pro	Claris	Frontline Distribution	0256 463344	£323	Widely compatible – and used – database	
Helix Express	Helix Technology	Helix Technology	0642 343455	£328	Very visual relational database with customisable design	
NuBASE/Mac		Softline Distribution	081 642 2255	£229	Relational database	
Omnis 7		Blyth Software	081 346 9999	£881	Powerful relational database development tool	
Personal Butler		EuroSource	081 561 1993	£464	Server and relational database management system	
Super QuickDex/2	Casady and Greene	Softline Distribution	081 642 2255	£81	Latest version of popular 'address book' database	
Design & Illustration						
Adobe Photoshop	Adobe	Principal Distribution	0706 831831	£850	Very powerful and widely-acclaimed colour image manipulator	
Adobe TypeAlign	Adobe	Principal Distribution	0706 831831	£94	Coloured and customised text effects	
Aldus FreeHand 3.0.1	Aldus	Aldus	031 220 4747	£464	On-screen drawing, text-handling and editing font outlines in colour	
Aldus Intellidraw 1.0	Aldus	Aldus	031 220 4747	£148	'Intelligent' object-oriented package for brainstorming designs	
Aldus SuperPaint	Aldus	Aldus	031 220 4747	£116	A painting/drawing/image-enhancing tool	
Color MacCheese	Delta Tao	Softline	081 642 2255	£76	Powerful, easy-to-use paint application	
ColorIt!		KimTec	0202 888873	£116	Multi-featured 24-bit colour image paint package	
Cricket Draw III 1.0		Frontline Distribution	0256 463344	£175	Drawing package that supports PostScript output	
Expert ColorPaint		KimTec	0202 888873	£41	Budget-priced paint package	
KidPix	Brøderbund	Softline Distribution	081 642 2255	£34	Sound-linked drawing package for children	
MacDraw II	Claris	Frontline	0256 463344	£182	Drawing plus desktop publishing and presentation capabilities	
MacDrawPro 1.5	Claris	Frontline	0256 463344	£323	More advanced and versatile drawing package	
MacPaint 2.0v2	Claris	Frontline Distribution	0256 463344	£112	Basic painting package	
Monet v.2		KimTec	0202 888873	£293	Image enhancement for specialist graphics users	
Morph		MacLine	081 642-2222	£93	Allows two images to be morphed – amazing!	
Painter 2	Letraset	Letraset	071 928 3411	£382	Upgrade with 11 new features – renowned for its realism	
Typestry		Computers Unlimited	081 200 8282	£257	Creates and edits three dimensional type faces	
UltraPaint		Principal Distribution	0706 831831	£175	Multi-layer paint package	
Zeus		KimTec	0202 888873	£351	Extremely powerful paint program	
Educational						
Berlitz Think & Talk		Guildsoft	0752 606200	£187	Joint venture between two leading language companies	

Name	Maker	Distributor	Phone	Price	Comments	Rating
Hyperglot		Guildsoft	0752 606200	£42–£116	Language-learning products covering eight languages	
BBC Basic	HC Interface	HC Interface	0223 314934	£175	The BBC Basic programming language	
Emulation						
BBC Basic	HC Interface	HC Interface	0223 314934	£175	Gives a Mac a BBC Micro emulation	
SoftPC Universal	Insignia Solutions	Principal Distribution	0706 831831	£222	Turns your Mac into a PC/AT. Multipacks available	
SoftPC Windows	Insignia Solutions	Principal Distribution	0706 831831	£351	Emulator that lets your Mac to run Windows programs (requires a Quadra)	
SoftPC/AT 2.5	Insignia Solutions	Principal Distribution	0706 831831	£351	As the Universal, but designed for more powerful Macs.	
File Reading & Transfer						
Access PC		Principal Distribution	0706 831831	£69	Read and write DOS disks on your Mac	
DOS Mounter		Computers Unlimited	081 200 8282	£94	Enables you to read and write to DOS disks	
Colour Screen >> Mac	HC Interface	HC Interface	0223 314934	£112	Graphics transfer between Mac and both Archimedes and BBC	
DOSReadA		MacLine	081 642 2222	£30	Enables Mac to accept and read DOS disks	
LapLink III	Traveling Software	Frontline Distribution	0256 20534	£129	Mac/PC file transfer for two users on AppleTalk	
PICTure This 2.0	FMG Softworks	MacWarehouse	0800 181332	£85	Translates over 24 graphics formats to PICT/PICT2 files	
RunPC 3.12	Key Exchange	Key Exchange	081 744 1551	£187/£405	Allows PC to be controlled from Mac as well as transferring files	
View>>Mac 3.0	HC Interface	HC Interface	0223 314934	£81	Acorn Archimedes to Mac transfers	
Word for Word Mac	Mindscape	Mindscape	0444 246333	£83	Mac/PC transfer software	
Games – Adventure						
3 in Three	InLine Design			£34	A series of over 80 word puzzles, logical dilemmas and brain teasers	
Citadel	Postcraft			£31	Rescue the princess from the wicked wizard	
Galactic Frontiers	Softstream			£46	Invade nearby systems on your way to galactic domination…	
Grail Quest	Artworks			£22	Search for the Holy Grail in the time of King Arthur	
Heart of China				£33	An action adventure set in the exotic Orient of the 1930s	
Indiana Jones	LucasFilm Games			£34	Based on the movie(s) – and you get to be Indy	
King's Quest V				£41	Cross a dark forbidding landscape to rescue a missing royal family	
Leisure Suit Larry 5				£41	Silly rather than sexy point and click adventure	
Lost Treasures I	Activision			£53	Twenty Intercom adventure games from Zork to Hitchhiker	
Lost Treasures II	Activision			£34	Eleven more from the Intercom files	
Mission Thunderbolt	Casady & Greene			£34	Huge graphic adventure – takes up 6Mb of hard drive space…	
Moriarty's Revenge	Mysterium			£41	Track down Sherlock Holmes' greatest adversary	
Pirates	Microprose			£25	Pit your wits against the deadliest seafarers of all time…	
Prince of Persia	Brøderbund			£29	Puzzle solving as well as fighting your way past the baddies	
Rise of the Dragon	Dynamix			£40	You are a private investigator in Los Angeles – in the year 2053…	
Spaceward Ho!	Delta Tao			£58	Strategic space game – control an entire spacefaring civilisation	
The Secret of Monkey Island	LucasArts			£36	Point-and-click role-playing game, swash your buckles as a pirate	
Castle of Dr Brain				£41	Use logic and deduction to explore this mad scientist's castle	
Carmen Sandiego	Brøderbund			£34 – £58	Track this elusive thief through various environments	
Games – Arcade						
Aqua Blooper Piper	Casady & Greene			£34	Can you fit the right pipe sections from the conveyor in time?	
Armour Alley	Electronic Arts			£38	Wargame from the viewpoint of a helicopter pilot	
Blade				£76	Get 12Mb of drive space, 4MB of RAM and a colour monitor first!	
Creepy Castle	Reactor			£38	Battle your way past fresh horrors at every stage…	
Crystal Quest	Casady & Greene			£34	12 aliens and 40 levels plus free constructor kit	
Dark Castle	Silicon Beach			£36	Fast-paced arcade action game – in black and white…	
Beyond Dark Castle	Silicon Beach			£36	… now there's a sequel	
Diamonds	Vargon			£34	Change the colour of the bouncing ball to knock out bricks	
Faces	Spectrum Holobyte			£28	Tetris derivative in which the falling blocks form… yes, faces	
Glider	Casady & Greene			£34	It's made of paper and you fly it from room to room…	
Harpoon	ThreeSixty			£46	Play as either the USSR or NATO in this global war game	
Lemmings	Psygnosis			£38	The most popular computer game of all time across all formats…	
Mission Starlight	Casady & Greene			£34	Addictive arcade shoot-em-up from the Crystal Quest creators	
Mutant beach	Inline Design			£46	Find the stolen jewel or a curse will make everyone mutate…	
Oids	Software Heaven			£29	Arcade-style space adventure shoot-em-up	
RoboSport	Maxis			£43	Battle strategy simulation game	
Sky Shadow	Casady & Greene			£34	Yet another arcade-style game from the Crystal Quest people	
Spectre	Velocity			£41 & £69	Tank battle game with a three-user network version	
Splatters	Bullseye			£46	Combination of arcade and strategy game	
Super Tetris	Spectrum Holobyte			£34	Colourful and even more difficult version of the original	
Tetris	Spectrum Holobyte			£28	Different shaped blocks have to be fitted together to make rows	
Welltris	Spectrum Holobyte			£28	This time a three dimensional version…	
Wordtris	Spectrum Holobyte			£28	Now you have to form words from falling letters	
Games – Board						
Battle Chess	InterPlay			£29	Chess game with animated, customisable pieces	

Name	Maker	Distributor	Phone	Price	Comments	Rating
Bridge	Artworks			£28	Five-card majors with Stayman and Blackwood conventions	
Casino Master	Centron Software			£40	Roulette, Blackjack, Poker, Baccarat and Craps	
Chess Champion	Oxford Softworks			£29	Enables two and three-dimensional views from any direction	
Classic Trilogy	Softstream			£46	Cribbage, Whist and Hearts – play against historical characters	
Go Junior/Go Master	Toyogo			£22 & £53	Play on 9x9, 13x13 or even 19x19 boards	
Ishido	Accolade			£38	Another ancient and challenging oriental game – superb graphics	
KaleidoKubes	Artwork			£22	The board grows, time runs out and the game gets more frustrating	
Puzzle Master	Centron Software			£32	250 crossword puzzles from the New York Times	
Shanghai II	Activision			£29	A tile-matching game that is surprisingly addictive	
Stratego	Accolade			£32	Now you can play this classic board game on your computer…	
Tesserae	InLine Software			£34	A tile-matching brain teaser	
Games – Simulations						
4th and Inches	Accolade			£18	American Football – play as coach, quarterback or fullback	
Capitalist Pig	Pluma Software			£41	Take charge of your own company	
Carrier Command	Rainbird			£25	Fly airstrikes as the commander of an aircraft carrier	
Chuck Yeager	Electronic Arts			£27	Fly, in colour, on your Mac – with a choice of 14 different planes…	
Civilization	MicroProse			£47	Develop an entire civilisation	
Falcon 2	Spectrum Holobyte			£40	Technically accurate flight sim for the purist	
Fast Break	Accolade			£34	A three-on-three basketball game	
Ferrari Grand Prix	Bullseye			£41	Realistic Formula 1 sim over five circuits	
Flight Simulator	Microsoft			£41	3-D landscapes and multiple windows scenery upgrades £26 each	
Fokker Triplane	Bullseye			£34	World War 1 flight sim – interesting change from jets…	
Grand Prix Circuit	Accolade			£38	Take on top circuits while driving for top teams	
Hellcats over the Pacific	Graphic Simulations			£46	Fly for the US Navy at a crucial point in WW2 – very smooth graphics	
Hunt for Red October	Electronic Arts			£22	Take your Russian submarine to the West	
Life and Death	Software Toolworks			£28	You are a surgeon and, ultimately, you have to operate…	
MacSki	XOR Corp			£49	Choose, or design, your own slope and then ski down it…	
Net Trek	Premiere			£46	Interactive AppleTalk network game for up to six players	
NFL Challenge	XOR Corp			£65	Realistic American Football sim – recognised by the NFL	
P51 Mustang	Bullseye			£46	Fly support to the D-Day landings in the Summer of 1944…	
PGA Tour Golf	Electronic Arts			£29	Play top players on famous courses. Three extra courses – £14	
Railroad Tycoon	Microprose			£32	Build a trans-American empire in the early 1800s	
Red Baron	Dynamix			£29	WW1 dogfighting against Manfred von Richthoven himself	
Sim Ant	Maxis			£34	Run an anthill – based on real ant biology and behaviour	
Sim City	Maxis			£32 (£38 col)	Build your own city from scratch or manage famous real cities	
Sim Earth	Maxis			£40	Run an entire planet – useful trainer for budding ecologists as well	
Starflight	Accolade			£34	Explore over 270 star systems with 800 planets…	
The Cycles	Accolade			£27	Race a 500cc bike around 15 of the world's top circuits…	
The Duel: Test Drive	Accolade			£38	Pits the fastest-ever Ferrari against the fastest-ever Porsche…	
Tristan	Amtex			£41	The simulation aimed at Pinball Wizards everywhere…	
Univ Military Sim II	RainBird			£32	Fight major battles, with control over entire nations…	
Vette	Spectrum Holobyte			£40	Car simulation set in the streets of San Francisco	
Games – Strategy						
Balance of Power	Mindscape			£28	As leader of the USA or USSR you have to maintain… peace!	
Balance of Power 1990	Mindscape			£28	Updated to cover the new world situation	
Balance of the Planet	Chris Crawford			£38	Your chance to sort out the ecological well-being of the planet…	
Darwin's Dilemma				£34	Game based on evolving life forms	
Guns & Butter	Mindscape			£32	Similar to Balance of Power, but set in a vast fantasy world	
Graphics						
Digital Darkroom	Aldus	Aldus	031 220 4747	£382	Image processing software from Aldus for scanned photographs	
GraphMaster	VB Systems	Axiom	081 941 8898	£229	Specialised presentation tool for variety in charts and graphs	
MacRenderMan	Pixar	Computers Unlimited	081 200 8282	£434	Can apply shading, texture etc to surfaces of graphics	
Ray Dream Designer	Ray Dream Inc	Amtech International	0202 476977	£452	3D modelling package – links to addDepth and JAG	
Hyper media& Multimedia						
ADDmotion II		KimTec	0202 888873	£146	Animation and colour painting extension for HyperCard2	
Adobe Premiere	Adobe	Principal Distribution	081 813 5656	£582	Sound and video editing software – extremely professional results	
CompileIt! v2.1		KimTec	0202 888873	£116	HyperCard and SuperCard script compiler	
ConvertIt! v1.5		KimTec	0202 888873	£182	HyperCard to SuperCard conversion utility	
Guide 2.0	Office Workstations	Market Labs	071 223 8247	£464	Full linking of text, graphics, video and audio applications	
HyperCard Developer Kit	Claris	Softline Distribution	081 642 2255	170	Customise your own HyperCard Stacks	
Magic		Computers Unlimited	081 200 8282	£351	Program designed for animation and presentation	
MediaMaker	Macromind	Computers Unlimited	081 200 8282	£676	Put together a variety of media clips as a presentation	
QuickPix		Computers Unlimited	081 200 8282	£140	A tool which helps you compress pictures for presentations	
Stack Enhancers		KimTec	0202 888873	£58	The latest HyperCard 2 enhancements	

Name	Maker	Distributor	Phone	Price	Comments	Rating
Integrated software						
Claris Works	Claris	Frontline Distribution	0256 20543	£229	Database, spreadsheet, WP, comms module and word processor	
Handy Works	MacVonk	MacVonk	0784 257257	£147	Versatile integrated package	
Microsoft Works 3.0	Microsoft	Microsoft	0734 270000	£136	WP, comms module, spreadsheet, database and graphics tools	
WordPerfect Works	WordPerfect	Frontline Distribution	0256 20534	£141	Powerful integrated package	
Music						
Audioshop	Opcode	MCM	081 963 0663	£79	Sample editor and CD-ROM controller	
Band in a Box	PG Music	Zone Distribution	071 738 5444	£79	Auto-accompaniment software – up to five instruments at a time	
Composer's Mosaic	Mark of the Unicorn	Sound Technology	0462 480800	£599	Desktop publishing package for Mac music makers	
CuBase 2.5	Steinberg	Harman Audio	0753 576911	£449	Steinberg's flagship sequencer	
CuBase Audio	Steinberg	Harman Audio	0753 576911	£479	Sequencer/digital audio processing software widely compatible	
CuBase Light	Steinberg	Harman Audio	0753 576911	£99	Entry-level sequencer	
CuBase MIDI Seq	Steinberg	Harman Audio	0753 576911	£259	Upgrade to CuBase Audio adding MIDI mixer/manager	
MasterTracks Pro 5	Passport	MCM	081 963 0663	£379	Powerful intuitive sequencer	
Notator Logic	E-Magic	Sound Technology	0462 480000	£499	Powerful sequencing and notation package	
Performer	Mark of the Unicorn	Argent	071 379 6690	£449	MIDI sequencer	
Symbolic Composer	Tonality Systems	Tonality Systems	0924 383017	£250	Powerful composer's tool	
Vision 1.41	Opcode	MCM	081 963 0663	£399	Powerful, very graphically-based sequencer	
Networks & Networking						
Cumulus	Heyden & Son	Heyden & Son	081 203 5171	£289	Networkable client/server for archiving and indexing image files	
MacSupervisor	Hi Resolution	Hi Resolution	0580 211194	£700	Comprehensive network monitoring without disturbing the other users	
Net Mounter		Computers Unlimited	081 200 8282	£94	Lets you access NetWare file servers over any Ethernet network	
NetScrap		EuroSource	081 561 1993	£293 (3-user)	Powerful, multi-user network scrapbook	
TeamAgenda	MacVonk	MacVonk	0784 257257	£93	Diary/organiser, five-user plus server package (£410)	
Timbuktu 5.0		Gomark	071 7317930	£187	Can control a PC running Windows from a Mac, and vice versa	
Timbuktu/Remote 3.0		Gomark	071 7317930	£179	Remote access/control of a Mac by modem	
Optical Character Recognition						
Catchword Pro 2.2	Logitech	Logitech	0344 891313	£234	OCR software for the ScanMan 32 hand scanner	
OmniPage Direct		Computers Unlimited	081 200 8282	£529	Enables Mac to read text and numbers in almost any format	
Read-It OCR Pro		Softline Distribution	081 642 2255	£464	Wide range of built-in fonts – can be trained to recognise new ones	
Project Management						
AgentDA	TeamBuilding Tech	Apple Centre Central	021 333 3448	£105	Calendar, for creating agendas and scheduling your time	
Alarming Events 1.1	C E Software	Frontline Distribution	0256 20534	£116	Utility for appointment files, with scheduling and reminders	
Business Plan Toolkit		Softline Distribution	081 642 2255	£88	Produce impressive-looking business/project outlines	
CAT 3.0	CanDo Ltd	CanDo Ltd	0452 527603	£464	Database, WP, DTP facility, spreadsheet and time management	
In Control		Softline Distribution	081 642 2255	£116	Appointment and deadline organiser – multiple search/sort options	
KeyPlan	MacVonk	MacVonk	0784 257257	£382	Project planning and brainstorming tool for the complete beginner	
Microsoft Project	Claris	Frontline Distribution	0256 463344	£529	Project organising and management package	
MacSchedule		Computers Unlimited	081 200 8282	£247	Automatically designs multi-page Gantt schedule charts	
Market Forcasting Kit		Softline	081 642 2255	£110	Specialist spreadsheet; Excel-compatible	
Microsoft Office	Microsoft	Microsoft	0734 270000	£575	Contains Microsoft's Word, Excel and Mail software among others	
Rag Time	MacVonk	MacVonk	0784 257257	£617	Spreadsheet, graphics, charting and WP with 12 dictionaries	
Smart Alarms		MacLine	081 642 2222	£58	Appointments scheduler, network-compatible	
The Far Side Calendar		MacLine	081 642 2222	£68	Idiosyncratic organiser based on popular cartoon series	
Publishing						
Personal Press 2.0	Aldus	Aldus	031 220 4747	£116	Page-layout software that automatically assembles text and graphics	
Publish-It Easy 3.0		Softline distribution	081 642 2255	£147	DTP package for beginners	
Spreadsheets						
4D Calc v.2		ACI	0625 536178	£234	Designed for 4th Dimension, but works well on its own	
Claris Resolve	Claris	Frontline Distribution	0256 20534	£323	Spreadsheet which supports a wide range of formats	
Excel 4.0	Microsoft	Microsoft	0734 270000	£405	Now comes with task-specific menus and a help system	
Lotus 1-2-3 for Macintosh	Lotus	Principal Distribution	0706 831831	£405	One of the most widely used spreadsheets adapted for the Mac	
Utilities						
After Dark 2.0		Softline Distribution	081 642 2255	£45	Superior screen-saving package	
Alki Seek	Alki Software Corp	Alki Software Corp	0101 206 286 2600	$40	Replacement for, and more versatile option than, Finder	
AME	Microcom	MacLine	081 642 2222	£229	Allows highly customised access privileges	
Auto-Save 2.0		Softline Distribution	081 642 2255	£41	Automatically saves your work at chosen pre-set intervals	
AutoDoubler 3.7.7	Salient Software Inc	Amtech International	0202 476977	£69	Automatically compresses files left unused on the hard drive	
Calendar Creator	Power Up Software	Axiom	081 941 8898	£70	Create and customise your own calendar	
CalendarMaker 3.0.1		Frontline Distribution	0256 20534	£52	Add graphics to your calendar print-outs	
CD-ROM Toolkit	FWB	NuSys	0379 650777	£81	Toolkit for speeding up access to CD-ROMs	

Name	Maker	Distributor	Phone	Price	Comments	Rating
Citadel 1.0		Softline Distribution	081 642 2255	£93	File encryption plus other security features	
Claris Dictionaries	Claris	Frontline Distribution	0256 20534	£41 each	French, German, Spanish and USA	
Crash Barrier	Casady and Greene	Softline Distribution	081 642 2255	£69	Intercepts/corrects system and application errors – autosave as well	
DIRectory		Softline Distribution	081 642 2255	£71	Creates catalogue of your hard disk files	
DiskDoubler 2.0	Salient Software Inc	Amtech International	0202 476977	£69	File compression utility	
DiskFit Pro		Principal Distribution	0706 831831	£105	Backups for both files and networks	
DiskMaker	Golden Triangle	DirekTek	081 845 5969	£69	Universal SCSI disk formatter –work with a variety of hard drives	
DiskTop 4.0.2		Frontline Distribution	0256 20534	£93	Alternative to Finder	
Duplocator	Midnight Software	Amtech International	0202 476977	£69	Specially designed to search any drive and list duplicate files	
easyPrint		Softline Distribution	081 642 2255	£29	Prints straight from the desktop without having to use Finder	
Empower I	Magna	Amtech International	0202 476977	£163	Protection program: from booting to managing files and folders	
Empower Remote	Magna	Amtech International	0202 476977	£347	Protection program: from booting to managing files and folders	
Exposure Pro		Softline Distribution	081 642 2255	£105	Screen capture and image editing tool	
FastForms	Power Up Software	Axiom	081 941 8898	£147	If you hate forms – you can now design you own	
FileGuard	HighWare	MacLine	081 642 2222	£170	Offers to encrypt any file you create to keep it from prying eyes	
Formulator	Icon Technology	Icon Technology	0533 546225	£140	Software for creating and printing mathematical formulae	
Freedom of Press	ColorAge Inc	DirekTek	081 845 5969	£116	Offers PostScript-like printing from non-PostScript printers	
FWB HD Toolkit	FWB	NuSys	0379 650777	£175	Toolkit for FWB hard drives	
FWB Personal Edition	FWB	NuSys	0379 650777	£81	Stripped-down version of the full FWB Hard Drive Toolkit	
Hyper DA 2.0		Softline Distribution	081 642 2255	£112	Reads Hypercard files from inside an application	
JAG	Ray Dream Inc	Amtech International	0202 476977	£93	Anti-aliasing for PICS and PICT images	
Kaboom!	Nova Development	Riva	0420 22666	£43	Lots of sounds for your Mac's interrupts, excursions and alarums	
Laserplot	MacVonk	MacVonk	0784 257257	£88	Transfers HPGL files to EPSF files for CAD/CAM work	
Letter Writer Plus	Power Up Software	Axiom	081 941 8898	£88	WP for letter writers – £141 when combined with Address Book Plus	
Mac≈Bac	Hi Resolution	Hi Resolution	0580 211194	£69	Useful backup utility with built-in reminders	
MacTools Deluxe		Principal Distribution	0706 831831	£106	From PC Tools: file management/backup/recovery package	
MacPrefect	Hi Resolution	Hi Resolution	0892 724050	£41	Protects Macs from outside interference – useful in schools	
Marco Polo		Computers Unlimited	081 200 8282	£352	Archives, retrieves and shares documents regardless of format	
MarkUp		Computers Unlimited	081 200 8282	£164	Edit a document even if you don't have the original application	
Capture		Computers Unlimited	081 200 8282	£157	Lets you take a picture of anything your screen can show you	
ClickPaste		Computers Unlimited	081 200 8282	£94	Stores formatted pages, sized graphics or multiple text blocks etc	
Microcom 911 Utilities		Softline Distribution	081 642 2255	£88	Comprehensive disk fixing utilities	
MacFlow		Computers Unlimited	081 200 8282	£282	Produce professional looking flow charts	
More After Dark	Berkeley Systems	MacLine	081 642 2222	£23.50	Further developments on the screen-savers including a shoot-em-up!	
myDiskLabeler		Amtech International	0202 476977	£65	Easy-to-use label designer and printer	
Norton Utilities	Symantec	Principal Distribution	0706 831831	£175	Best-known name in disk utilities and as popular as ever	
Now Utilities 4.0.1		Frontline Distribution	0256 20534	£105	Utilities for manipulating files and menus	
Ofoto 1.1.1		Frontline Distribution	0256 20534	£229	Scanning software – supports a wide range of scanners	
QTBackup 3.0		Frontline Distribution	0256 20534	£118	File backup package	
QuicKeys 2.1.3		Frontline Distribution	0256 20534	£140	Package for making your own macros	
Quotemaster		Guildsoft	0752 606200	£82	3,000 quotes on 800 subjects by 800 authors	
Redux 1.63		Softline Distribution	081-642 2255	£58	File backup utility	
SAM 3.0		Principal Distribution	0706 831831	£105	Anti-virus utilities – download latest virus killers from bulletin board	
ShadowWriter 2.0		Softline Distribution	081 642 2255	£81	Lets you share low-end (ie cheaper) non-laser printers	
SmartScrap & Clipper	Solutions Inc	MacLine	081 642 2222	£58	SmartScrap, pictorial scrapbook; Clipper, reduce/ enlarge/crop images	
Snapback	Golden Triangle	DirekTek	081 845 5969	£316	Auto-backup to a central disk (3-user pack)	
Snooper		Softline Distribution	081 642 2255	£175	Testing tool for troubleshooting Macs	
Software Bridge 2.0.1	Key Exchange	Key Exchange	081 744 1551	£140	WP file conversion which automatically detects format of source file	
Sticky Business		Amtech International	0202 476977	£112	Design and print your own labels to any size or shape you require	
Stuffit Deluxe 3.0		Principal Distribution	0706 831831	£93	File compression and archiving	
Suitcase II 2,0		Principal Distribution	0706 831831	£65	Utility for managing fonts and desk accessories	
Super 7 Utilities		DirekTek	081 845 5969	£65	A collection of seven small-but-useful utilities	
SuperlaserSpool		Principal Distribution	0706 831831	£116	Print spooling software for TOPS	
TimesTwo	Golden Triangle	DirekTek	081 845 5969	£116	Expands your disk's capacity, rather than compresses files	
Twin It	Golden Triangle	DirekTek	081 845 5969	£175	Continuous, automatic backup of one hard disk to another	
Virex 3.6		Softline Distribution	081 642 2255	£69	Detects and destroys viruses and repairs damaged files	
WallPaper	Thought I Could	MacLine	081 642 2222	£46	Advanced screen-saver	
Word Processing						
Grammatik 5	Reference Software	Riva	0420 22666	£116	Will check your grammar in terms of style, usage, etc	
LetterPerfect	WordPerfect	WordPerfect	0932 850500	£99	Cut-down version of WordPerfect	
MacWrite II	Claris	Frontline Distribution	0256 20534	£206	Updated version of long-time classic	
Microsoft Word 5.1	Microsoft	Microsoft	0734 270000	£275	One of the all-time top word processors – recently upgraded	
Nisus 3.0.6		Softline Distribution	081-642 2255	£323	Word processor with built-in macro making	
Nisus Compact		Softline Distribution	081-642 2255	£116	Cut-down version of Nisus 3.0.6 for Powerbooks	
Thunder 7		Softline	081-642 2255	£69	Spelling checker and thesaurus on the desktop	
WordPerfect 2.1	WordPerfect	WordPerfect	0932 850500	£234	Has graphics and drawing packages built in	
WriteNow 3.0		MacWarehouse	0800 181332	£152	Latest version supports colour text and graphics	

NEXT ISSUE

HARDWARE

Now the introductions are over, let's get down to the serious business of how to expand your Mac set-up. Make sure you catch our 12-page special feature on:

PRINTERS

How to choose the best one for your needs – and budget! We review and rate the best options for under £1,000

HARD DRIVES

Running out of disk space? Why it makes sense to buy a removable hard disk and save on long-term costs

SYSTEM UPGRADES

How to add more memory to your Mac and whack up your work-rate with an accelerator

SCANNERS

Hand-held or flatbed? Greyscale or colour? We reveal the best choices for scanning quality images

DIGITISERS

How do budget video and audio samplers compare with their pro-end equivalents? We name the best buys

PLUS:

GAMES GALORE
THE SHAREWARE ZONE
and MAC ANSWERS

PLUS OUR EXPERT TIPS & ADVICE COLUMNS ON:

GRAPHICS
DESIGN
VIDEO
COMMS
DTP
MUSIC
BUSINESS
CD-ROM

OH... AND YOUR NEXT EXCLUSIVE COVER-DISK INTO THE BARGAIN

Issue two of MacFormat will be on sale from Tuesday May 4

WIN AN LCIII

This is your chance to win one of Apple's brand new range of Macs, the LC III. **MacFormat** has got together with the biggest vendor of Macs in Britain – KRCS Group – to bring you one of these great new machines worth over £1,200!

The LC III has an amazing specification on paper: a 25MHz 68030 processor, 4Mb of RAM, a 32-bit data bus and a 40Mb hard disk. But what that means in practice is that it's nearly twice as fast as an LC II and it leaves the original LC standing! It's the ideal machine for home or business, and with KRCS Group throwing in a colour monitor as well, it will run all the major programs and games, fast.

Because the machine is from the KRCS Group, as well as the LC III 4/40 you get an additional two-year no-quibble warranty called EXTEND, itself worth £159. KRCS has nine centres all over the country from Sheffield to Shoreham and Coventry to the City. Two regional repair centres feature engineers who will come and help whatever your hardware problem.

Once you've taken out the EXTEND warranty, you need never worry about hardware repair bills again, safe in the knowledge that a fix is only a phone call away. If that kind of peace of mind appeals to you then you'll be glad to hear that the KRCS Group offers this service on most its Macs for a very low fee when you buy the machine. If you'd like to find out more, call 0602 505352 or 081 949 2229 and they will direct you to your nearest KRCS Group centre.

So, how can you get your hands on this LC III? Just answer the three ridiculously simple questions below and send your entries on a postcard or back of a sealed envelope to KRCS Group Competition, MacFormat, 29 Monmouth Street, Bath BA1 2DL, to reach us by Monday May 3rd. Don't forget to include your name and address. The winners will be announced in **MacFormat** issue 3, out on July 6.

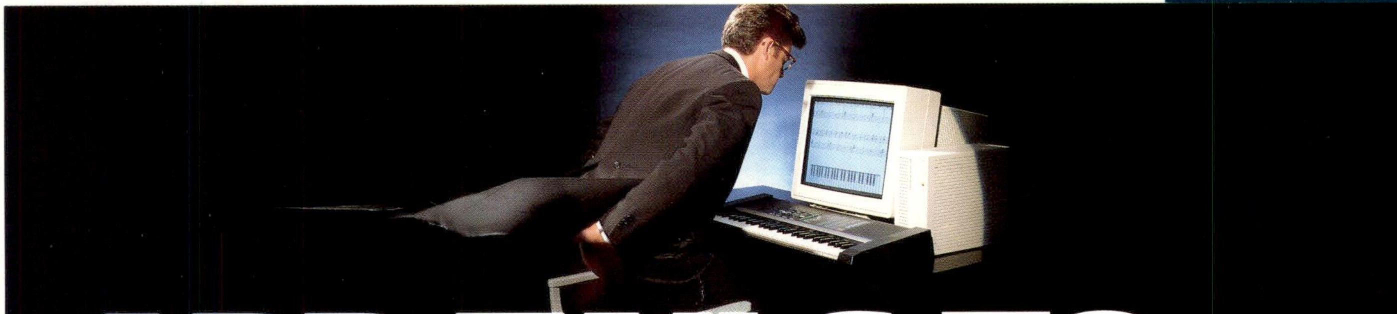
QUESTION 1
How many outlets does the KRCS Group have?

QUESTION 2
How long does the KRCS extended warranty last?

QUESTION 3
When does issue 2 of MacFormat go on sale?

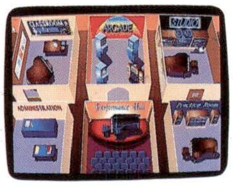
Couldn't be easier could it? Good luck!

COMPETITION



ADD TAILS TO YOUR MACINTOSH.

Admit it. You daydream about being on stage. Rock musician one day. Classical artiste the next. And as you play the last note... the applause starts.



A comprehensive teaching system. Choose which room to go to.

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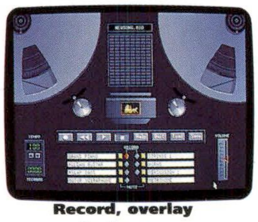
That's because The Miracle is a complete hardware/software combination, designed to bring out the musician in all of us.

Learning goes from basic through to advanced. The full course takes over a year.



Record, overlay and mix your own creations in the 8 track studio.

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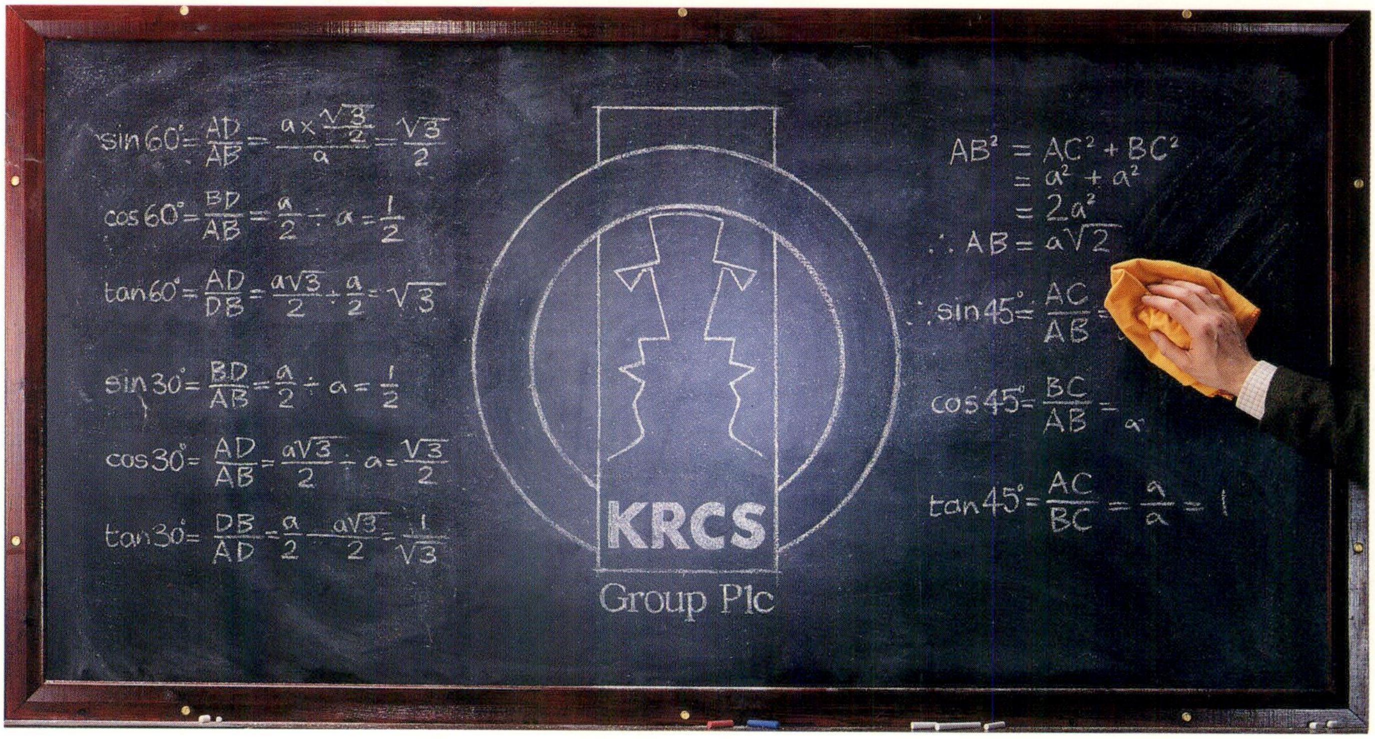
WE MAKE THE GRADE IN EDUCATION


sin 60° = AD/AB = (a × √3/2)/a = √3/2
cos 60° = BD/AB = a/2 ÷ a = 1/2
tan 60° = AD/DB = a√3/2 ÷ a/2 = √3
sin 30° = BD/AB = a/2 ÷ a = 1/2
cos 30° = AD/AB = a√3/2 ÷ a = √3/2
tan 30° = DB/AD = a/2 ÷ a√3/2 = 1/√3
AB² = AC² + BC²
= a² + a²
= 2a²
∴ AB = a√2
∴ sin 45° = AC/AB =
cos 45° = BC/AB = a
tan 45° = AC/BC = a/a = 1
KRCS
Group Plc

If the government were to publish a list of leading Apple™ computer dealers in education, the KRCS Group would head it.

Although we are the UK's largest Apple dealership, we would be the first to agree that size isn't everything.

Indeed we see the computer merely as a tool to deliver solutions designed to fit in and complement the work in schools at all stages of the National Curriculum.

The fact is that experience, understanding and service are of much greater importance.

For that reason we have built up a specialist team from the world of education to give you the kind of sympathetic and objective advice you need.

Whether you are involved in administration or education, from primary up to post graduate research or beyond, our specialists have an intimate knowledge of the challenges that you face.

With their hands-on experience, they are in the best position to advise you on hardware, software and peripherals. They can also introduce you to a range of attractive financial packages designed to help you afford what you need.

This year we are establishing six dedicated education demonstration centres around the country to provide a showcase for the latest solutions to educational needs, be they in the classroom, laboratory or office.

So when it comes to education, the KRCS Group hasn't just made the grade, it has set the standard. To find out more, simply call one of the KRCS Education Centres listed below.

KRCS
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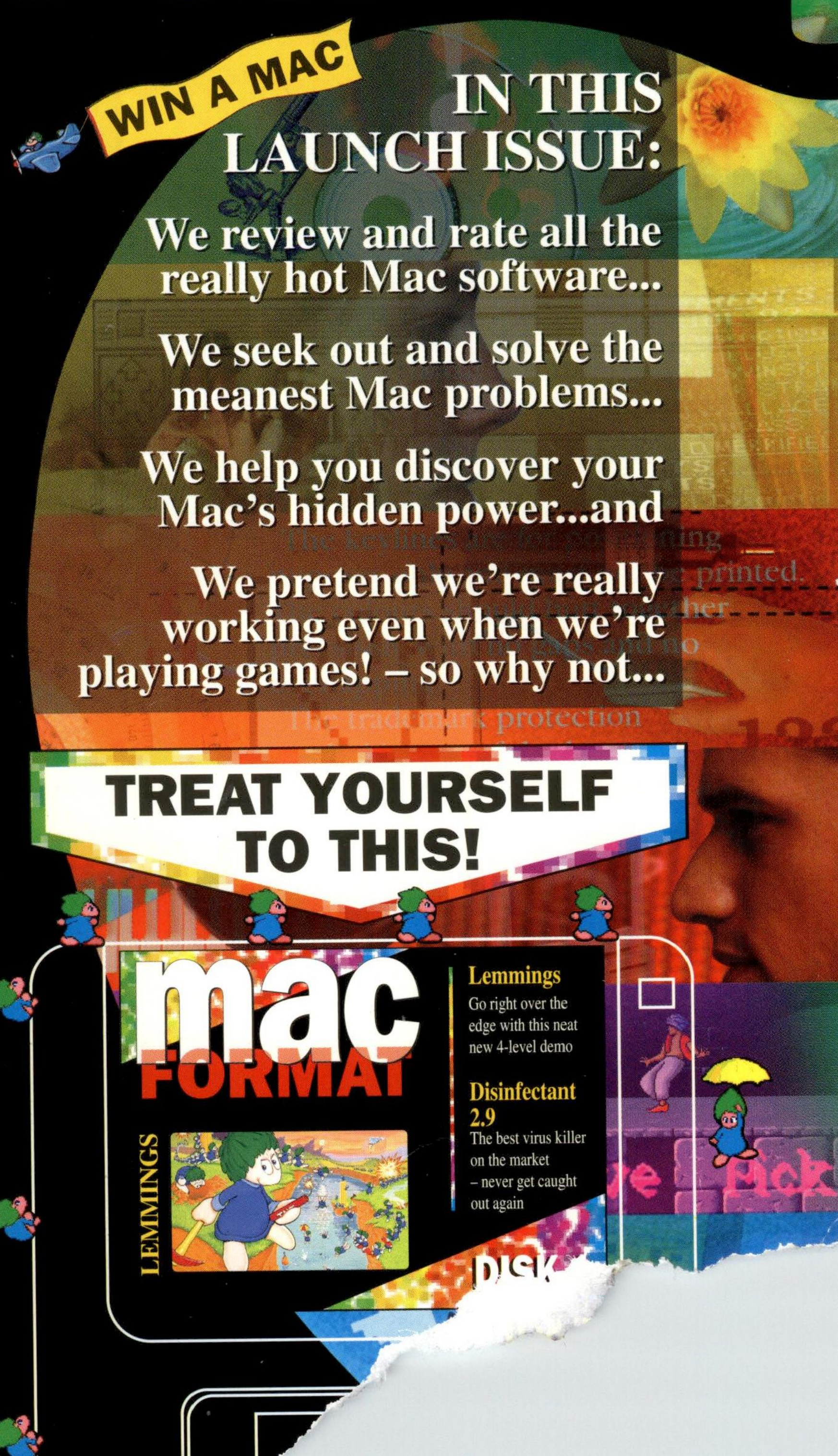
A new kind of Apple Mac magazine

mac FORMAT



IN THIS LAUNCH ISSUE:

We review and rate all the really hot Mac software...

We seek out and solve the meanest Mac problems...

We help you discover your Mac's hidden power...and

We pretend we're really working even when we're playing games! – so why not...

TREAT YOURSELF TO THIS!

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LEMMINGS

Lemmings
Go right over the edge with this neat new 4-level demo

Disinfectant 2.9
The best virus killer on the market – never get caught out again

DISK

MacFormat March/A

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INSIDE THIS ISSUE:

MAC NEWS UPDATES

News – Your definitive guide to all the latest low-cost hardware and software releases as they're announced PLUS Leading Edge reports

COVER DISK GUIDE

Just who are these cute little critters? All you need to know to get your copy of Lemmings and Disinfectant up and running

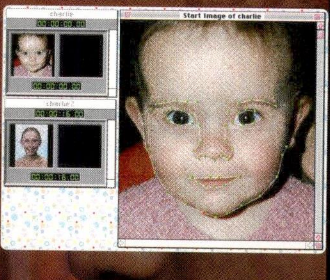
COVER FEATURE

The choicest cuts of code from Design, DTP, Video, Music, Business, Education and Entertainment sorted, sampled and selected

GREAT GAMES GUIDES

We ask the top software houses which games they're developing for the Mac PLUS Reviews of the hottest new games and tons of tips on Hellcats

SPECIAL INTERESTS



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MAC ANSWERS

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E SO E GUIDE

um with 8 pages of d shareware